

Northumberland Development Project

Energy Strategy for Planning

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1 Introduction

This documents sets out the proposed energy strategy for the Northumberland Development Project located in Haringey, North-East London. This document has been prepared in alignment with the London Plan, 2011; GLA guidance "Greater London Authority guidance on preparing energy assessments (2014 and 2015 releases)" and other accompanying documentation from both the GLA and Haringey.

1.1 Description of the scheme

The Northumberland Development Project is a major development located in the Borough of Haringey on and surrounding the existing White Hart lane stadium. The development will be constructed in several phases with the Stadium being completed initially, followed by the other buildings at varying stages. A render of the proposed development is shown in Figure 1—1 and comprises of the following components:

- **Stadium (D)** - 61,000 seat capacity with suitability for 55,000 capacity music concert use
- **Hotel (D)** - 180 bed hotel with 49 serviced apartments
- **Tottenham Experience (D)** - Museum, megastore and other assorted uses
- **Residential Towers (O)** - 585 dwellings and business community uses at plinth level
- **Extreme Sports (O)** - Sports/activity centre
- **North-East building (O)** - Community health centre

The application is a hybrid application seeking part outline and part detailed planning permission (indicated above O=Outline, D= Detailed). The varying levels of detail submitted for approval are referenced throughout the document, as this has an impact on the level of detail and analysis present in this document.



Figure 1—1 Proposed development

1.2 Policy and Drivers

1.2.1 Building Regulations Part L 2013

Part L of the 2013 Building Regulations refers to the Conservation of Fuel and Power in both new construction dwellings (Part L1A) and non-domestic buildings (Part L2A). These documents stipulate a minimum level of efficiency that buildings must be constructed to. The guide to the regulations (Approved Documents) must be read in conjunction with other supporting documents, such as the National Calculation Methodology (NCM) Modelling Guide 2013.

Compliance with these regulations is demonstrated through thermal modelling analysis. For domestic buildings this is demonstrated through SAP (Standard Assessment Procedure calculations) and for non-domestic buildings dynamic simulation energy modelling or SBEM (Simplified Building Energy Model) is required.

1.2.2 London Plan

The London Plan is a policy planning framework for the Greater London Area, within which Haringey is located. This document is intended as an overarching policy to inform all of the London Boroughs and facilitate achievement of the ambitious climate change targets. By definition, the document has been incorporated within London Borough of Haringey's policies. For clarity the key energy related requirements are outlined below.

Energy	5.2 Minimising CO2 Emissions	Developments should achieve a carbon emission improvement of 35% on Part L 2013 Building Regulations, or as per Building Regulations requirements after 2016
	5.3 Sustainable Design and Construction	Developments must demonstrate that sustainable design standards are integral to the proposal and is applicable to the design, construction and operation stage of this project. Further guidance in the Mayor's Supplementary Planning Guidance (SPG)
	5.6 Decentralised Energy in Development Proposal	Development should evaluate the feasibility of decentralised energy networks including Combined Heat and Power (CHP) systems
	5.7 Renewable Energy	Seek to reduce emissions in line with Policy 5.2 via use of onsite renewable energy options. There is a presumption that all major development proposals will seek to reduce carbon emissions by at least 20% through renewable energy where feasible
	5.9 Overheating and Cooling	Developments should demonstrate how the proposal will seek to minimise potential overheating and reliance on air conditioning systems

1.2.3 London Borough of Haringey

In addition to the overarching policies of the London Plan, Haringey has several strategic policies included within its Local Plan, and further elaborated upon within the Supplementary Planning Guidance documents. The most relevant energy-related policy is 'SP4: Working towards a low carbon Haringey'.

This sets out requirements for all developments to assess the viability of connecting to existing heating and cooling networks, provision of site wide CHP, and communal heating and cooling systems. This is in line the GLA London Plan expectations and should follow the same energy hierarchy. The Local Plan also specifies a 20% reduction in carbon emissions from onsite renewable energy regeneration, which can include connections to local sources of decentralised renewable energy.

As previously stated, unless local policies are more stringent, the London Plan requirements should take precedence in defining the most onerous targets for the development.

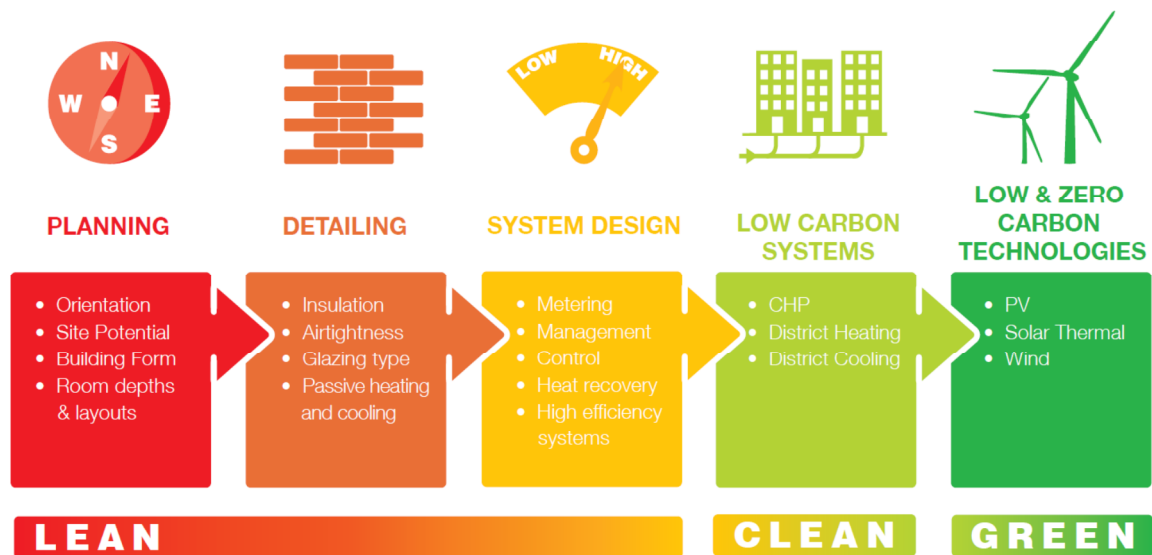
2 Approach

2.1 Strategy

In accordance with planning policy, the energy strategy for the development has been developed in alignment with the energy hierarchy; Lean, Clean, Green.

This approach aims to minimise energy consumption from the outset through the use of efficient massing, passive measures and efficient systems before the deployment of low and zero carbon technologies.

- Lean: Maximise energy efficiency
- Clean: Supply energy efficiently using low carbon heating and cooling systems
- Green: Incorporate renewable energy



2.2 Energy modelling methodology

As stipulated by planning policy guidance, all Carbon Dioxide emissions of the proposed development must be reported on. In order to provide this information, energy modelling has been performed on the entire development and the results are presented throughout this report. Two different methodologies have been utilised to assess the non-domestic and domestic elements of the scheme, in order to produce the required outputs for reporting purposes. These have been used to estimate the baseline CO₂ emissions values as well as the Carbon Dioxide emissions reductions achieved from application of the Lean, Clean, Green hierarchy.

The Table 2—1 below summarises the utilised methodologies.

Table 2—1 Modelling methodologies

Typology	Methodology (software)	Required for
New build – Domestic	SAP (STROMA)	Building regulations/Planning Policy
New build – Non-domestic	Dynamic simulation model (IES)	Building regulations/BREEAM/Planning Policy

Carbon Dioxide emissions reductions achieved through the design proposals have been detailed for each of the different building typologies within the development, as well as collectively to demonstrate the whole development performance.

2.2.1 Unregulated energy

The energy modelling methods outlined above refer to the regulated energy demands within the development i.e. space heating, domestic hot water, fixed lighting, fans and pumps. Planning policy requires that reporting on unregulated energy demand is also required for the development.

Energy modelling of non-domestic typologies (utilising NCM methodology) provides an estimate of unregulated Carbon Dioxide emissions in the form of 'Equipment' loads. For domestic units the BREDEM (Building Research Establishment Domestic Energy Model) methodology has been adopted.

2.3 Detailed & Outline Planning Permission

The planning application is a hybrid application that seeks part detailed and part outline planning permission. Based on this level of approval sought, the level of detail for each building is varied and has been reflected through the CO₂ emissions analysis performed. Strategies have been explored for the site as a whole and are explained within the body of the report, but the detailed assessments of each individual building are reflective of this varied level of design.

A summary of the approach used has been presented below:

Permission Sought	Level of Design	CO ₂ emissions assessment
Detailed	Complete architectural plans, sections and elevations Concept MEP strategies	Full Part L modelling analysis
Outline	Basic form (excluding facades details) Basic programme of use typologies	Non-domestic - Estimate of CO ₂ emissions based on industry benchmarks or similar projects Domestic – Estimate of CO ₂ emissions based on indicative apartment layout modelling

Information presented for buildings seeking outline permission will be refined at the subsequent reserved matters application stage through the use of full dynamic thermal modelling. At this stage an estimate has been produced to reflect the potential carbon emissions impacts from the development as a whole.

3 Site-wide systems

3.1 Decentralised energy networks

London Borough of Haringey and the Greater London Authority strongly promote the implementation of decentralised energy networks (DENs) across London. In alignment with planning policy, the feasibility of a DEN within the context of the development has been assessed through the following hierarchy (London Plan Policy 5.6) :

1. Connection to existing heating or cooling networks
2. Site-wide CHP network
3. Communal heating and cooling

3.1.1 Planned Haringey DEN

With any new development, the potential to connect into an existing or proposed DEN can provide significant benefits for the reduction of Carbon Dioxide emissions for the development itself and the wider network. Exploring connection into a planned network can increase the viability of the network itself by creating additional demand and energy sales revenues.

At present there are no existing DENs located in the vicinity of the development. However, the area has been identified as a key development area within the Haringey Sustainable Design and Construction SPG¹. The identified area can be seen as Zone 1 in Figure 3—1 largely driven by the proposals for the regeneration of the Northumberland Park area².

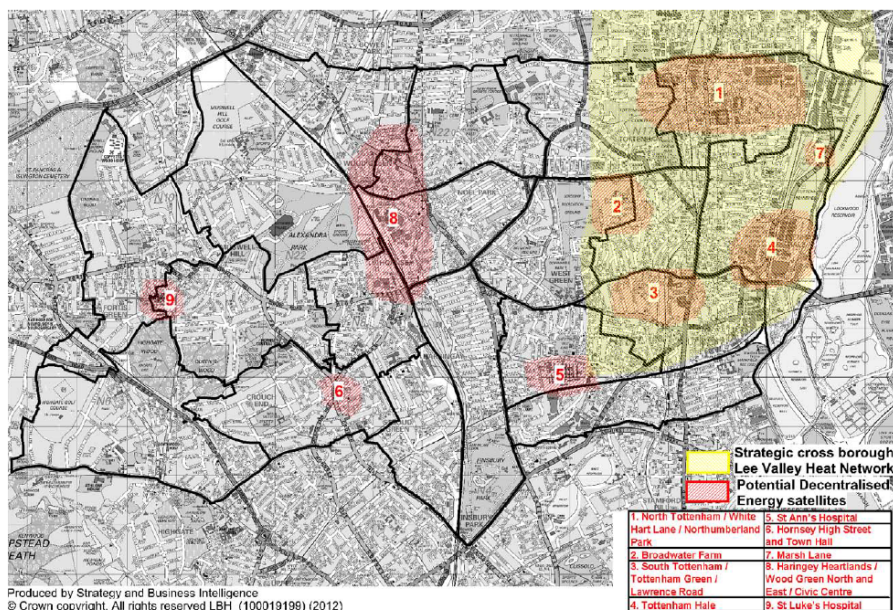


Figure 3—1 Potential for decentralised energy in Haringey (Local Plan: Sustainable Design and Construction SPG Appendices Pg 8)

¹ <http://www.haringey.gov.uk/housing-and-planning/planning/planning-policy/local-development-framework-ldf/supplementary-planning-guidance-documents/sustainable-design-and-construction-spd>

² <http://www.haringey.gov.uk/housing-and-planning/tottenham/tottenham-regeneration/northumberland-park-area-and-regeneration#Next%20steps>

The Council is committed to delivering a district energy solution in this part of Tottenham, most likely a district heating network supplied by gas-fired CHP engines, as part of its wider regeneration plans for the redevelopment of the High Road West and Northumberland Park estates on either side of the NDP site. It is envisaged that these sites will deliver in the order of 7,000 new homes over the next 20 years and that these homes will be served by a DEN. The Council has instructed Parsons Brinkerhoff to prepare a techno-economic viability report for the installation of a DEN in close proximity to the NDP site and a report is expected to be completed by the end of the year.

Plans for development of a DEN within the vicinity of the development are seen as a major opportunity for the Northumberland Development Project, and conversely it is a key part of the district heating feasibility as it is likely to be the first phase of the regeneration proposals. It is therefore proposed that all buildings will be designed to connect into this network when completed. Timelines for the completion of the DEN are still to be confirmed, but there is clear commitment from the Council for a DEN to be delivered at the earliest opportunity.

The Club is committed to working with the Council to advance an energy strategy and assess the feasibility of a DEN and its location within the surrounding regeneration areas, and indeed there is already cooperative working between the parties on this matter.

3.1.2 Proposed strategy

The energy strategy that supports this application is premised on connecting the development in to the DEN once it is delivered. Timeframes for delivery of the network have not yet been confirmed, but it is generally considered that it will come online after completion of the first phase (including the stadium) but hopefully before future phases of the project are complete.

Based on this assumption the proposals for connection and integration with the DEN are as follows:

- Phase 1 complete (Stadium, Tottenham Experience, NE Building)
 - o DEN not operational
 - o Gas fired boiler plant located in the Stadium's East-Stand will supply all heating demands of the Stadium, Tottenham Experience and NE Building via a site-wide heating network.
 - o Systems designed to be district-ready, suitable for future DEN connection.
- Future phases complete (Hotel, Extreme sports, residential towers)
 - o DEN operational
 - o Connection to the Haringey District Heating network installed to supply heat to all buildings within the NDP.
 - o Connection arrangements (location of entry point, internal routing of pipework, ownership, maintenance requirements etc.) to be agreed. These technical requirements are being developed in consultation with the Haringey DEN team to develop the most appropriate solution for all parties.
 - o Existing energy centre (gas boilers) within the stadium will be decommissioned as and when appropriate.

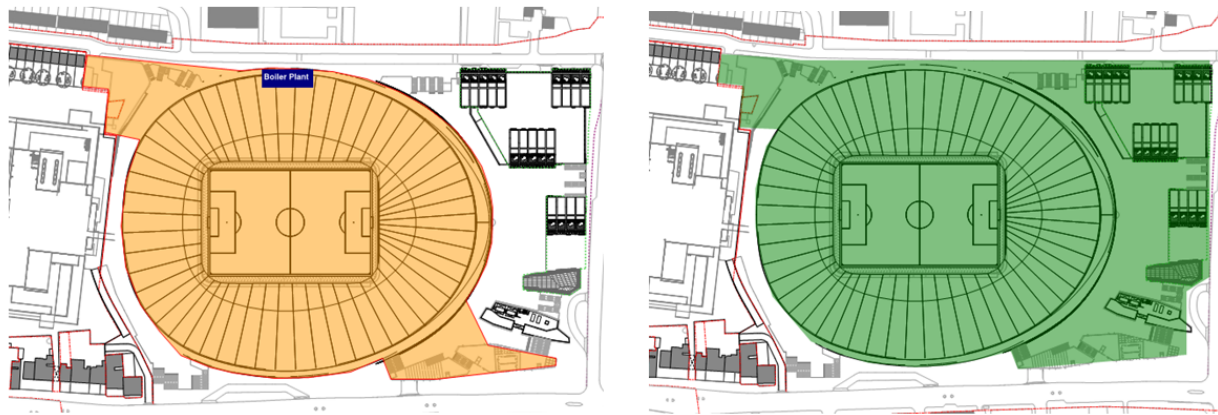


Figure 3—2 Left: Phase 1 site-wide network supplied by gas boilers. Right: Whole-site to be supplied from Haringey District Heating (connection point and internal distribution to be worked up with Haringey).

3.1.3 Back-up strategy

In the unfortunate scenario that a Haringey district heating network is not constructed, an alternative site-wide low carbon strategy will be required. In this scenario, a CHP-led site-wide heating network will be investigated.

Initial analysis suggests a CHP of the following specification and performance would be achievable:

Fuel input	2,083 kW (Ener-G 770)
Heat output	872 kW
Electrical output	770 kW
Thermal store (m3)	50
Proportion of heat from CHP	62%
Network Carbon factor	0.15 kgCO ₂ /kWh useful heat

An outline area for this potential energy centre has been identified within the basement of the Residential towers development, utilising a central riser within the tallest tower to route the flue up to roof level for exhaust. Further details of this energy centre design, configuration and how it would be operated will be assessed and the overall feasibility considered should the preferred strategy of connecting into the Haringey DEN not be realised.

3.1.4 Modelling approach

Due to the level of technical information in respect of the DEN available at this time, Carbon Dioxide emissions reductions available through connection to a district heating network cannot be quantified in detail. For the purposes of this report, an estimate of the reductions available have been made using assumptions aligned with the Part L methodology. A carbon factor 0.15 kgCO₂/kWh useful heat has been used, indicated within the NCM methodology as representative of a typical district heating system³. Results presented in this report are highly sensitive to this figure and as a result it will be refined once technical information is available regarding the proposed network.

This figure aligns with the analysis of the back-up site wide CHP solution and is therefore considered realistic for the required CO₂ modelling purposes.

3.2 Low and zero carbon (LZC) technology

LZC technology can help to deliver significant Carbon Dioxide emissions reductions arising from developments. The table below summarises the potential of various LZC technologies considering the context of the proposed development.

Technology	Comments	Viability
Wind turbine	- Generates electricity - Development is located in a high density urban environment. Wind flows in such locations are often turbulent which significantly reduce the available energy output - No land area for installation of a turbine. Roof mounted vertical axis systems do not offer an efficient method of generation.	 LOW
Biomass	- Generates heat/hot water - Development's location in central London creates difficulties for frequent fuel deliveries and air quality - Poor compatibility with proposed District Heating connection from wider network	 LOW
Air source heat pump	- Generates heat/hot water (pre-heat) - Typically used as an alternative to gas-fired boilers to meet space heating requirements. Very low resultant CO₂ savings. - Potential noise issues and visual impact - Poor compatibility with proposed District Heating connection from wider network	 LOW

³ NCM modelling guide 2013, page 18

Ground source heat pump	- Generates heat/hot water (pre-heat) - Requires close coupling to building piles, a significant number of expensive and deep boreholes or a large shallow area in which a 'slinky' can be laid - Very constrained development site – coupling with building piles is only possible solution (very high cost). - Poor compatibility with proposed District Heating connection from wider network	 LOW
Solar thermal	- Generates heat/hot water - Low maintenance, efficient technology - Moderate Carbon Dioxide emissions savings due to displacement of natural gas instead of Carbon Dioxide emissions intensive grid electricity - Most suitable for hotel and residential application, with very limited roof area however. - Poor compatibility with proposed District Heating connection from wider network	 MEDIUM
Solar Photovoltaics (PV)	- Generates electricity - Some very small roof areas across the development potentially available - Simple installation, low maintenance - Good delivered Carbon Dioxide emissions savings for the development due to Carbon intensive National Grid supply	 MEDIUM

As demonstrated above, LZC options for the development are limited to Solar Technologies. Due to the proposed district heating connection, it is considered that the limited roof area available would be most beneficial for Solar Photovoltaics from a Carbon Dioxide emissions reduction perspective as heat-based savings will be delivered from the District Heating network connection.

3.2.1 Solar PV

Although Solar Photovoltaics have been identified as the most suitable LZC technology for the site, their application is highly limited due to the form and context of the development. A summary of the proposals across the development is shown below.

Building	Details	Proposal
Stadium	Lightweight structural solution proposed for the stadium roof design. Roof loading is not designed to accommodate Solar PV loading (20kg/m ²). Additional capital cost for a structural solution which could accommodate Solar PV, is not considered financially viable in addition to the cost of the panels.	No Solar PV proposed
Hotel	Unobstructed roof area due to high-rise form Significant amount of roof top MEP plant – Ventilation plant, lift plant, chillers, water storage. External restaurant/bar areas also proposed.	No Solar PV proposed
Tottenham Experience	Low level building where all Westerly sun is blocked by Hotel tower significantly reducing Solar PV output. Large proportion of roof accessible for roof garden area, with green roof planned for other areas.	No Solar PV proposed
Extreme Sports	Roof area at low-level, overshadowed by surrounding buildings. Potential for a very small array on the highest roof area	No Solar PV currently proposed – to be confirmed at detailed planning
Residential Towers	Unobstructed roof areas suitable for Solar PV. Limited roof area in relation to GFA due to high-rise form. Provisional array proposed, based on estimate of 60% of roof area suitable for PV accounting for roof level plant and spacing between panels for access/maintenance/shading.	250m² of Solar PV proposed – to be confirmed at detailed planning
North-East Building	Low level building located due north of the stadium, therefore roof area significantly shaded.	No Solar PV proposed

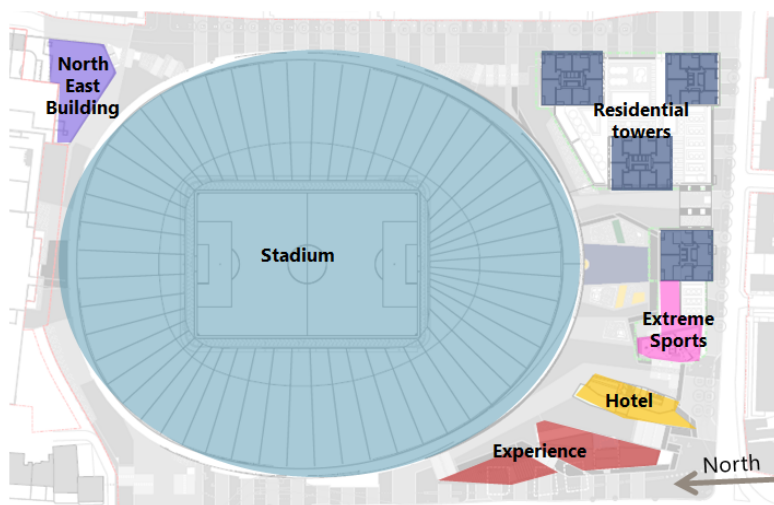


Figure 3—3 Site plan

4 Detailed application

4.1 Stadium

The stadium represents the major component of the proposed development. The 61,000 seat capacity stadium includes hospitality areas, changing rooms, match-day support facilities, office space and catering facilities. There is additionally a large proportion of un-conditioned spaces such as concourses, car parking and the stadium bowl itself which fall outside of the remit for the Part L modelling.

It should be noted, that from a construction point of view the Tottenham Experience is considered to be the same building as the stadium and shares some common MEP systems (Gas boilers, Chillers, power supply etc.). Due to differing design challenges between the two buildings however, they have been modelled and reported on individually.

4.1.1 Lean

A highly efficient approach to building fabric and MEP systems has been utilised to reduce Carbon Dioxide emissions from the outset. Highly insulated and air-tight fabric has been utilised to reduce heat losses in winter, and minimise solar gains during the summer months.

Fabric element	Unit	Proposed - Stadium	Notional building Part L 2013
External walls	W/m ² .K	0.15	0.26
Glazing (incl. frame)	W/m ² .K	1.4	1.6
Glazing G-value	-	0.3	0.4
Roof	W/m ² .K	0.11	0.18
Floor	W/m ² .K	0.11	0.22
Airtightness	m ³ /m ² @50Pa	3	3

The stadium uses a wide range of MEP systems suited to the proposed use of the different areas. For the calculation of these 'Lean' stage results, all heating is provided by high efficiency gas-fired boilers. Cooling is provided through high efficiency air-cooled chillers, or VRF units. Chillers are prioritised for match day operation to maximise their efficiency, therefore self-contained VRF systems are utilised for more frequent daily use facilities (e.g. office areas). All domestic hot water (DHW) is provided centrally with highly insulated pipework to prevent un-necessary heat loss within the building. LED lighting will be used throughout the development to minimise energy consumption of artificial lighting and cooling systems by reducing internal heat gains.

A summary of the MEP proposals is shown below:

System	Specification
Heating plant	Gas boilers – 95% seasonal efficiency
Cooling plant	Air-cooled chillers – SEER 4.72 VRF – SEER 5-5.2
Ventilation systems	AHU SFP – 0.8-1.55 W/l/s
Lighting efficiency (luminaire)	80 Lumens/Watt
Lighting controls	PIRs and daylight controls where appropriate

Following application of these measures the Stadium achieves a 4% reduction below the Part L 2013 Notional Building. Results for the stadium broken down by energy use are shown below.

kgCO ₂ /m ² .yr	Actual	Notional
Heating	4.0	5.0
DHW	9.8	8.8
Cooling	6.4	5.6
Aux	8.8	10.2
Lighting	8.3	9.3
Total	37.2	38.9
	4% Reduction	

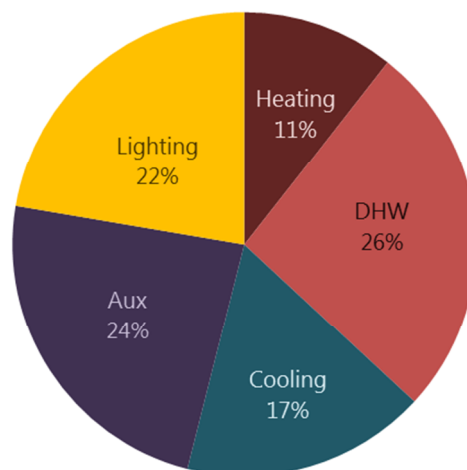


Figure 4—1 Actual building breakdown

4.1.2 Clean

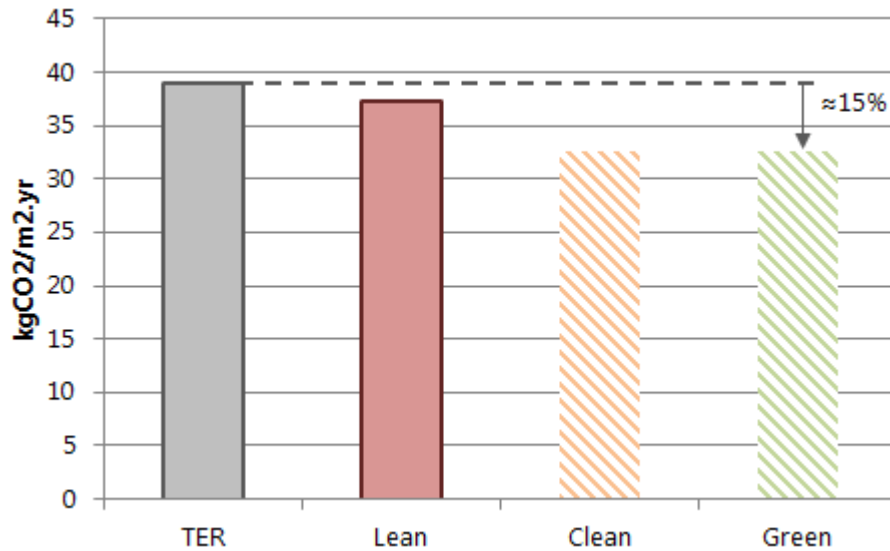
As discussed previously, it is proposed that the Stadium will connect into the proposed Haringey District Heating network. Although technical information regarding the network performance is not yet available based on the technical assumptions stated in section 3.1.4 it is estimated that a Carbon Dioxide emissions reduction of 15% could be achieved compared to a Part L 2013 gas-fired boiler TER.

4.1.3 Green

No renewables are proposed for the Stadium development as outlined in Section 4.

4.1.4 Results

Following the application of the energy hierarchy, it is estimated that the Stadium can achieve a Carbon Dioxide emissions reduction of 15% compared to a Part L 2013 gas-fired boiler TER. The results will be refined once detailed performance information is available regarding the proposed district heating network.



Unit	TER	Lean	Clean	Green
kgCO ₂ /m ² .yr	38.9	37.2	32.5	32.5
tonnes CO ₂ /yr	2,088	1,997	1,746	1,746
%age reduction		4%	15%	15%

4.1.5 Unregulated

The unregulated Carbon Dioxide emissions as reported by the 'Equipment' load within the Part L BRUKL documentation are indicated below. Measures to reduce unregulated energy consumption from the building will include high efficiency office/IT equipment, low-energy floodlighting, efficient F&B equipment etc.

Building	kgCO ₂ /m ² .yr	tonnes CO ₂ /yr
Stadium	37.3	1,999

4.2 Hotel

The hotel building provides a combination of traditional hotel rooms and serviced apartments. It also includes additional facilities such as restaurants, bars, a swimming pool and a health club.

4.2.1 Lean

A highly efficient approach to building fabric and MEP systems has been utilised to reduce Carbon Dioxide emissions from the outset. Highly insulated and air-tight fabric has been utilised to reduce heat losses in winter, and minimise solar gains during the summer months. A curtain walling façade system is proposed across the whole building, with an external shading structure providing solar gain mitigation to the majority of spaces within the building.

Fabric element	Unit	Proposed – Hotel	Notional building Part L 2013
Opaque module (curtain walling)	W/m ² .K	0.8	0.26
Glazing (incl. frame)	W/m ² .K	1.4	1.6
Glazing G-value*	-	0.2-0.3	0.4
Roof	W/m ² .K	0.15	0.18
Floor	W/m ² .K	0.11	0.22
Airtightness	m ³ /m ² @50Pa	3	3

* Shading effect created by the external shading structure has been accounted for as an effective g-value.

The hotel is predominantly serviced by fan coil units located in all bedrooms/apartments, with communal areas utilising a similar strategy; simple background heating and ventilation provided in the BOH areas. For the calculation of these 'Lean' stage results, all heating is provided by high efficiency gas-fired boilers. Cooling is provided through high efficiency air-cooled chillers.

All domestic hot water (DHW) is provided centrally with highly insulated pipework to prevent un-necessary heat loss within the building. LED lighting will be used throughout the development to minimise energy consumption of artificial lighting and cooling systems by reducing internal heat gains. Intelligent control of lighting and ventilation is proposed within the hotel rooms and apartments via use of the guest room cards.

A summary of the MEP proposals is shown below:

System	Specification
Heating plant	Gas boilers – 95% seasonal efficiency
Cooling plant	Air-cooled chillers – SEER 4.1
Ventilation systems	AHU SFP – 1.5-1.9 W/l/s
Lighting efficiency (luminaire)	75 Lumens/Watt
Lighting controls	PIRs and daylight controls where appropriate

Following application of these measures the Hotel achieves a 2% reduction below the Part L 2013 Notional Building. Results for the hotel broken down by energy use are shown below. Majority of savings are achieved through highly efficiency lighting systems (including display lighting), and an efficient DHW distribution system due to a single loop configuration to prevent un-necessary pipe lengths. The building energy demand is hot water dominated due to the large number of showers, bathroom, pool facilities, catering, laundry, etc.

kgCO ₂ /m ² .yr	Actual	Notional
Heating	7.3	5.0
DHW	45.3	45.7
Cooling	2.9	2.9
Aux	13.8	14.2
Lighting	3.9	6.7
Total	73.2	74.4
2% Reduction		

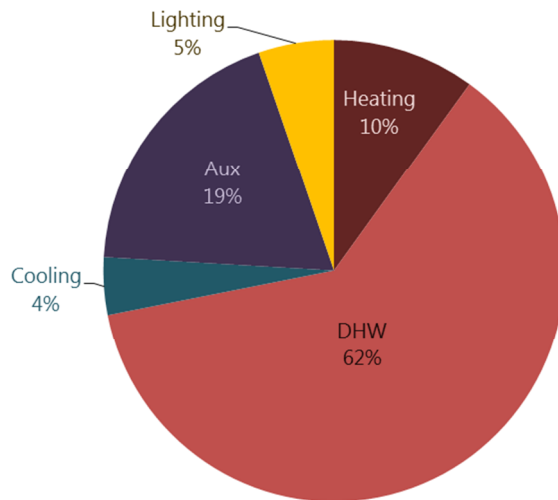


Figure 4—2 Actual building breakdown

4.2.2 Clean

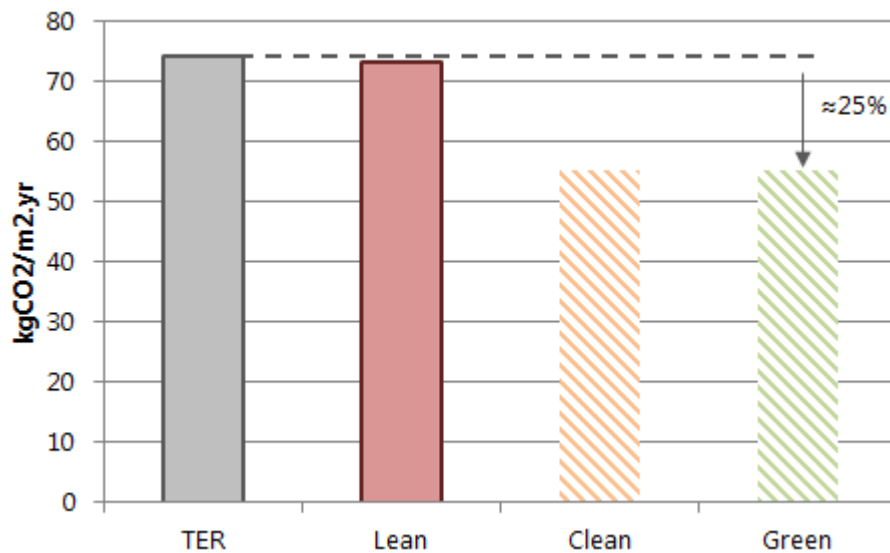
As discussed previously, it is proposed that the Hotel will connect into the proposed Haringey District Heating network. Although technical information regarding the network performance is not yet available based on the technical assumptions stated in section 3.1.4 it is estimated that a Carbon Dioxide emissions reduction of 25% could be achieved compared to a Part L 2013 gas-fired boiler TER. The significant potential reduction is due to the major heat-demands associated to the hotel which the district heating would supply.

4.2.3 Green

No renewables are proposed for the Hotel development as outlined in Section 4.

4.2.4 Results

Following the application of the energy hierarchy, it is estimated that the Hotel can achieve a Carbon Dioxide emissions reduction of 25% compared to a Part L 2013 gas-fired boiler TER. The results will be refined once detailed performance information is available regarding the proposed district heating network.



Unit	TER	Lean	Clean	Green
kgCO ₂ /m ² .yr	74.4	73.2	55.3	55.3
tonnes CO ₂ /yr	1,171	1,151	870	870
%age reduction		2%	25%	25%

4.2.5 Unregulated

The unregulated Carbon Dioxide emissions as reported by the 'Equipment' load within the Part L BRUKL documentation are indicated below. Measures to reduce unregulated energy consumption from the building will include high efficiency office/IT equipment, low-energy vertical transport systems, efficient catering equipment, pool covers etc.

Building	kgCO ₂ /m ² .yr	tonnes CO ₂ /yr
Hotel	29.1	456

4.3 Tottenham Experience

The Tottenham Experience building comprises mainly of the club's megastore, ticket sales facilities, museum/exhibition facilities and a café. It has an accessible roof area for public access and is integrated around Warmington House, a Grade 2 listed building.

4.3.1 Lean

A highly efficient approach to building fabric and MEP systems has been utilised to reduce Carbon Dioxide emissions from the outset. Highly insulated and air-tight fabric has been utilised to reduce heat losses in winter, and minimise solar gains during the summer months. The architectural concept uses a glazed façade at the ground level for the retail spaces, with a more opaque construction on the upper level where the museum exhibits are located. The 'glazed nose' entrance area is an un-conditioned space and therefore not within the remit of the Part L model.

It is understood that no fabric refurbishment is possible for the Warmington house building (except loft insulation), therefore assumptions have been made regarding its existing fabric performance. It is important to note, that the results are negatively affected by the inclusion of the Warmington house areas as it is comparing an existing listed building to new construction standards. The specific details of how to consider Warmington House from a Building Regulations Part L perspective will need to be discussed and agreed with Building Control.

Fabric element	Unit	Proposed – Tottenham Experience	Notional building Part L 2013
External Wall	W/m ² .K	0.2	0.26
Glazing (incl. frame)	W/m ² .K	1.4	1.6
Glazing G-value	-	0.2-0.3	0.4
Roof	W/m ² .K	0.15	0.18
Floor	W/m ² .K	0.11	0.22
Warmington House – External Wall	W/m ² .K	2.5	0.26 (new construction)
Warmington House - Glazing	W/m ² .K	5.6	1.6 (new construction)
Airtightness	m ³ /m ² @50Pa	3	3

The Tottenham Experience is predominantly serviced by fan coil units supporting a flexible internal layout for retail and exhibition space. For the calculation of these 'Lean' stage results, all heating is provided by high efficiency gas-fired boilers. Cooling is provided through high efficiency air-cooled chillers which are located within the stadium.

All domestic hot water (DHW) is provided centrally with highly insulated pipework to prevent un-necessary heat loss within the building, although hot water demand will be limited. LED lighting will be used throughout the development to minimise energy consumption of artificial lighting and cooling systems by reducing internal heat gains. LED systems will also be used for all display lighting, which comprise a large proportion of energy demand within retail and museum spaces.

A summary of the MEP proposals is shown below:

System	Specification
Heating plant	Gas boilers – 95% seasonal efficiency
Cooling plant	Air-cooled chillers – SEER 4.72
Ventilation systems	AHU SFP – 1.6 W/l/s
Lighting efficiency (luminaire)	75 Lumens/Watt
Display lighting efficiency (luminaire)	65 Lumens/Watt
Lighting controls	PIRs and daylight controls where appropriate

Following application of these measures the Tottenham Experience achieves a 10% reduction below the Part L 2013 Notional Building. Results for the Tottenham Experience broken down by energy use are shown below. Majority of savings are achieved through high efficiency lighting systems, importantly including display lighting..

kgCO2/m2.yr	Actual	Notional
Heating	5.1	4.1
DHW	10.0	7.9
Cooling	2.6	3.0
Aux	10.7	9.6
Lighting	13.7	22.0
Total	42.1	46.5
	10% Reduction	

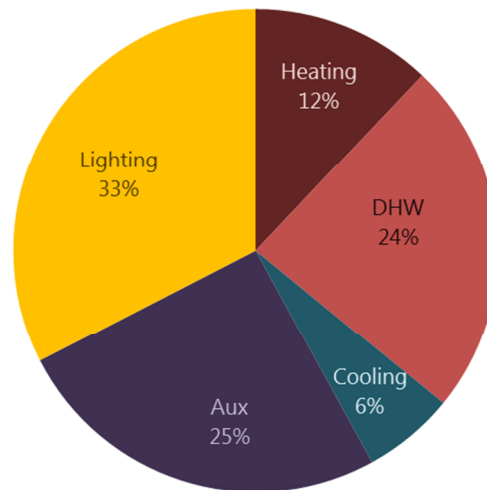


Figure 4—3 Actual building breakdown

4.3.2 Clean

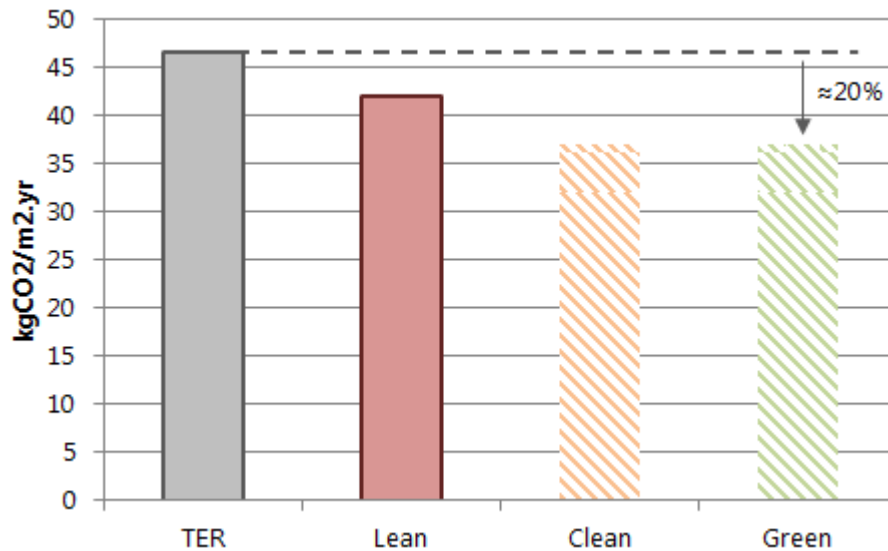
As discussed previously, it is proposed that the Stadium will connect into the proposed Haringey District Heating network, whose heating and cooling distribution will therefore serve the Tottenham Experience building. Although technical information regarding the network performance is not yet available based on the technical assumptions stated in section 3.1.4, it is estimated that a Carbon Dioxide emissions reduction of 20% could be achieved compared to a Part L 2013 gas-fired boiler TER.

4.3.3 Green

No renewables are proposed for the Experience development as outlined in Section 4.

4.3.4 Results

Following the application of the energy hierarchy, it is estimated that the Tottenham Experience can achieve a Carbon Dioxide emissions reduction of 20% with a connection compared to a Part L 2013 gas-fired boiler TER. The results will be refined once detailed performance information is available regarding the proposed district heating network.



Unit	TER	Lean	Clean	Green
kgCO ₂ /m ² .yr	46.5	42.1	36.9	36.9
tonnes CO ₂ /yr	203	183	161	161
%age reduction		10%	20%	20%

4.3.5 Unregulated

The unregulated Carbon Dioxide emissions as reported by the 'Equipment' load within the Part L BRUKL documentation are indicated below. Measures to reduce unregulated energy consumption from the building will include high efficiency office equipment, low energy IT equipment, etc.

Building	kgCO ₂ /m ² .yr	tonnes CO ₂ /yr
THFX Experience	29.1	456

5 Outline application

5.1 Introduction

The following section presents the Carbon Dioxide Emissions results following thermal modelling assessment of the development components seeking outline planning approval. As explained, limited information is available regarding the precise internal layouts and construction details of these buildings therefore a high-level energy modelling assessment has been carried out. The results presented below will be confirmed within the relevant applications for detailed planning approval.

5.2 Residential

The residential component of the development (585 dwellings) is spread across 4 high-rise towers of varying heights, with 5 town houses located at ground level and some community use also at plinth level.

Due to the outline nature of this element of the application, floor plans for the dwellings have not yet been fixed, however an indicative apartment layout has been proposed by the architects (Allies and Morrison). This apartment layout has been used as the basis for this energy assessment, and SAP modelling has been performed using Stroma software.

All information presented below is what will be aspired towards during the detailed development of these buildings. At present the information represents a best practice approach for a development of this type, but all information is subject to confirmation and will be communicated in detail within the detailed planning application.

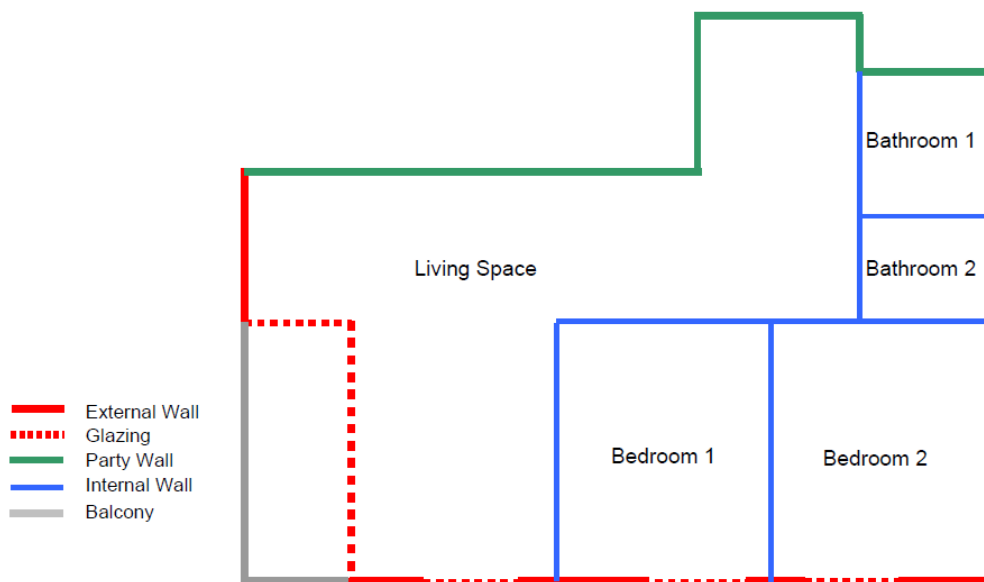


Figure 5—1 Indicative apartment layout

5.2.1 Lean

In order to minimise energy demand from the outset, a highly efficient building form and fabric performance will be adopted. Fabric performance will include low u-value constructions, and construction details which will minimise the heat loss through thermal bridging.

It is proposed that all dwellings would be ventilated via an MVHR (mechanical ventilation heat recovery) system due to the airtight construction, and overheating risk will be managed through passive measures instead of active cooling systems. For the calculation of these 'Lean' stage results, all heating is provided by high efficiency gas-fired boilers.

The table below summarises the system parameters used within the modelling of this indicative apartment.

Table 5-1 Building envelope and system parameters

Building Parameter	Value
Roof U-value (W/m ² K)	0.10
Wall U-value (W/m ² K)	0.15
Glazing U-value (W/m ² K) inc. frame	1.40
Glazing g-value	0.68
Opaque door U-value	1.00
Air permeability (m ³ /m ² /hour)	3
Ventilation system	MVHR
Heating system	100% gas boiler (community), 89% efficiency
Hot water use	<125 l/p/d
Low energy light fittings	100%

Based on the indicative apartment layout assessed and the inputs proposed above, a lean reduction of 12% could be achieved compared to a Part L 2013 gas-fired boiler TER.

5.2.2 Clean

As discussed previously, it is proposed that the Residential towers will connect into the proposed Haringey District Heating network. Although technical information regarding the network performance is not yet available based on the technical assumptions stated in section 3.1.4 (60% CHP supply, 40% gas boiler supply utilised for STROMA inputs) it is estimated that a Carbon Dioxide emissions reduction of 33% could be achieved compared to a Part L 2013 gas-fired boiler TER.

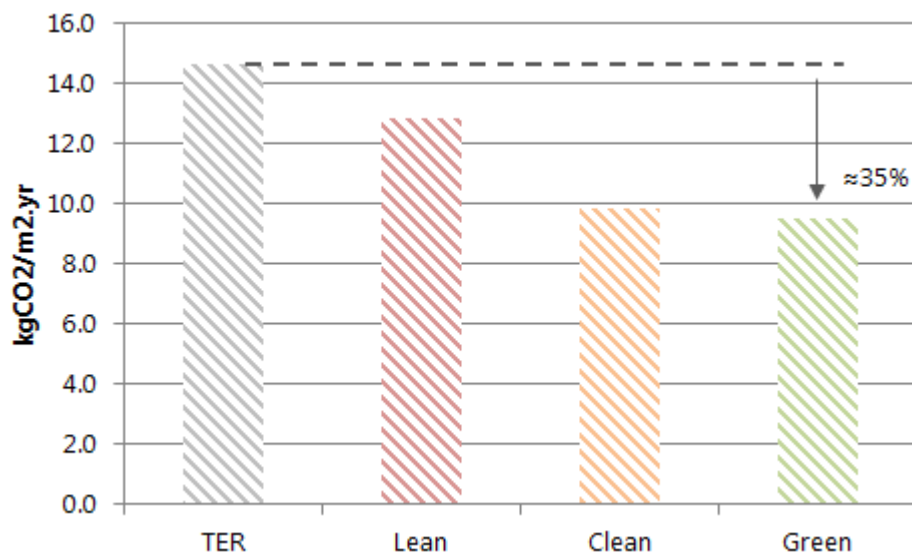
5.2.3 Green

As indicated in Section 4, it is proposed to explore the potential for a 250m² Solar PV array across the tower roofs. In order to maximise the benefit from this small roof area it is proposed to use high-performance panels which can achieve efficiencies of 20%.

Apportioning this array across the proposed residential component relative to the GFA of this indicative layout, it is estimated that a Carbon Dioxide emissions reduction of 35% could be achieved compared to a Part L 2013 gas-fired boiler TER.

5.2.4 Results

Following the application of the energy hierarchy outlined above, it is estimated that the residential component could achieve a Carbon Dioxide emissions reduction of 35% compared to a Part L 2013 gas-fired boiler TER. These results are estimates at this stage, and indicate an order of magnitude for the potential Carbon Dioxide reductions which could be achieved within the development. All details will be explored further and confirmed within the detailed planning approval applications. Per m2 values have been summed across the complete residential component floor area below.



Unit	TER	Lean	Clean	Green
kgCO ₂ /m ² .yr	14.6	12.8	9.9	9.5
tonnes CO ₂ /yr	773	678	521	502
%age reduction		12%	33%	35%

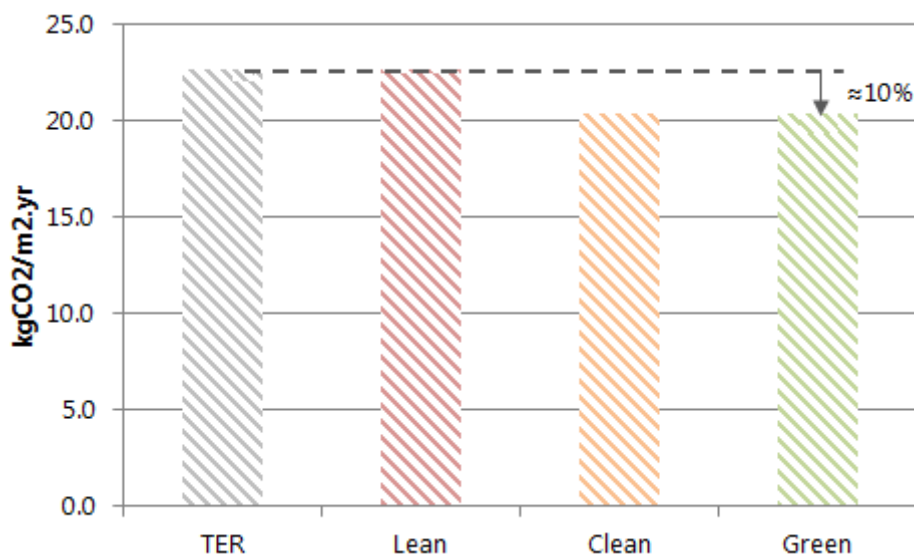
5.3 Extreme Sports Building

The Extreme Sports building is envisaged to include a diving tank, climbing wall among other high-performance sports facilities. At this outline stage façade constructions and detailed floor plans have yet to be developed and so detailed Part L modelling has not been carried out.

In order to provide an indication of the Carbon Dioxide emissions which will arise from the development, a benchmark value has been utilised from the Part L analysis of a comparable sports centre project designed to equal sustainable new-construction standards.

High performance fabric and MEP systems will be proposed of an equivalent standard to all other buildings across the site. Equally, the building will connect into the Haringey District Heating network when available, to deliver further Carbon Dioxide emissions reductions. There will be no provision of renewable technology within this building.

At this outline stage, for the purposes of assessing the site wide Carbon Dioxide emissions results have been presented below. At this stage no improvements on the Lean stage of the hierarchy have been assumed, and a 10% improvement from the district heating connection has been estimated compared to a Part L 2013 gas-fired boiler TER. All details will be explored further and confirmed within the detailed planning approval applications.



Unit	TER	Lean	Clean	Green
kgCO ₂ /m ² .yr	22.7	22.7	20.4	20.4
tonnes CO ₂ /yr	40	40	36	36
%age reduction		0%	10%	10%

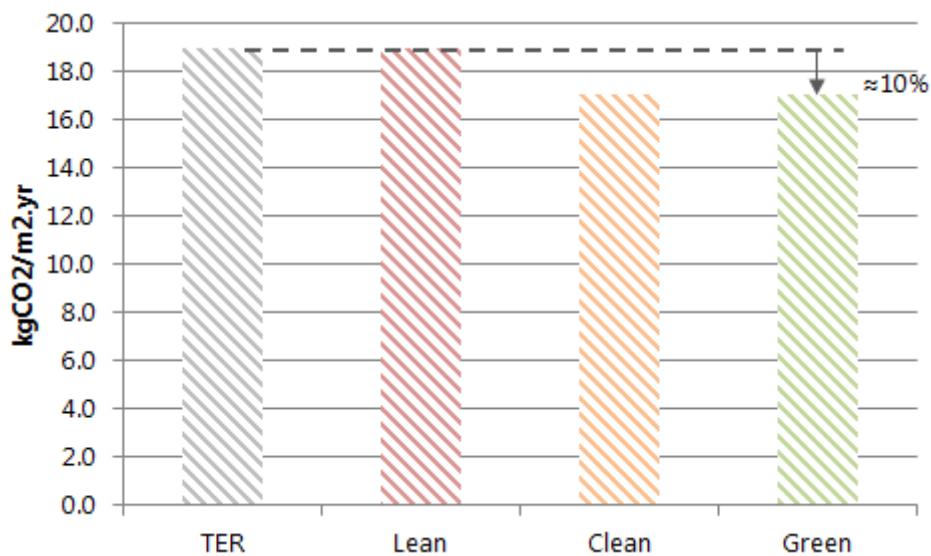
5.4 North-East building

The North-East building is envisaged to be a health centre serving the local community around the Northumberland Development project. At this outline stage façade constructions and detailed floor plans have yet to be developed and so detailed Part L modelling has not been carried out.

In order to provide an indication of the Carbon Dioxide emissions which will arise from the development, a benchmark value has been utilised from the Part L analysis of a comparable health centre development designed to equal sustainable new-construction standards.

High performance fabric and MEP systems will be proposed of an equivalent standard to all other buildings across the site. Equally, the building will connect into the Haringey District Heating network when available, to deliver further Carbon Dioxide emissions reductions. There will be no provision of renewable technology within this building.

At this outline stage, for the purposes of assessing the site wide Carbon Dioxide emissions results have been presented below. At this stage no improvements on the Lean stage of the hierarchy have been assumed, and a 10% improvement from the district heating connection has been assumed compared to a Part L 2013 gas-fired boiler TER. All details will be explored further and confirmed within the detailed planning approval applications.



Unit	TER	Lean	Clean	Green
kgCO ₂ /m ² .yr	19.0	19.0	17.1	17.1
tonnes CO ₂ /yr	42	42	38	38
%age reduction		0%	10%	10%

6 Overheating

As stated within policy, all developments must make reasonable endeavours to mitigate overheating risks and ensure cooling demands are managed to prevent excessive energy consumption from air-conditioning systems.

A summary of the design features incorporated across the development to minimise overheating risk and excessive cooling load are summarised below.

- Solar shading
 - o The stadium and the hotel both utilise a façade shading structure which has varying levels of perforations providing effective solar shading to the spaces behind.
- Solar control glazing
 - o In spaces without shading structures where excessive solar gains are a risk, high performance solar control glazing has been utilised. This utilises a low g-value (0.2-0.4) to minimise the solar radiation entering the spaces.
- High-efficiency lighting
 - o Use of high efficiency LED lighting across the development minimises the internal gains associated with artificial lighting and the resultant cooling demands/overheating risks.
- Natural ventilation
 - o Natural ventilation has been utilised where possible to reduce demand on active cooling systems, and condition spaces which are not subject to such strict conditioning requirements, e.g atria, concourses.
- Openable windows
 - o Openable windows have been employed where appropriate to provide control to users within the spaces, and prevent reliance on active cooling systems.

For buildings seeking outline approvals whose design is yet to be finalised (e.g. facades details), measures above have been incorporated in the design considerations to date and will continue to be coordinated during design development to minimise overheating risk and excessive cooling demand.

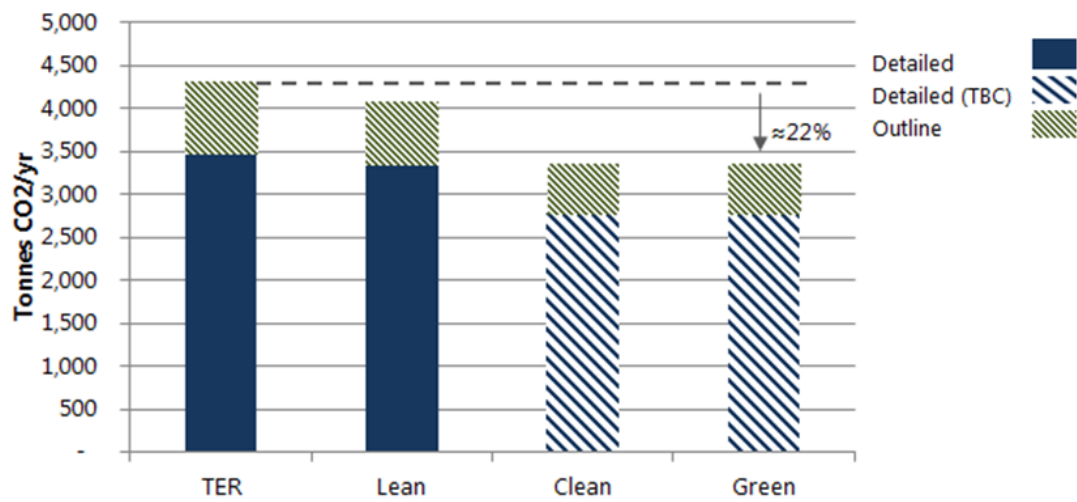
Part L Criterion 3 is an effective measure of overheating risk and excessive solar exposure. All spaces within buildings across the development which are occupied for large periods of the day are compliant with Criterion 3 as can be seen within the BRUKL documentation provided in the appendix. Spaces which do not comply, primarily include circulation areas such as concourses, which are not occupied for large portions of the day and are therefore exempt from the assessment as per Approved Documents Part L2A methodology. Furthermore, these spaces are often not provided with mechanical cooling systems using natural ventilation form high openings as a means to prevent overheating.

The residential towers are not envisaged to be comfort cooled, and overheating risk will be effectively managed when the design progresses to a greater level of detail. The indicative apartment performs well from an overheating perspective due to the large openable windows area and self-shading provided by the balcony structure.

7 Summary

7.1 Overall results

The graph below summarises the results from all components of the Northumberland Development project. Differentiation has been provided between the detailed and outline elements of the application, in addition to the savings achieved through connection to the DEN to be delivered by the council.



tonnes CO ₂ /yr	TER	Lean	Clean	Green
Detailed	3,460	3,330	2,780	2,780
Outline	860	760	600	575
TOTAL	4,320	4,100	3,380	3,355
%age reduction		5%	22%	22%

As shown in the results above; based on proposals for the detailed elements of the application and the assumptions included within this report regarding the district heating and the outline elements of the application it is estimated that the Northumberland Development project could achieve a total site-wide Carbon Dioxide emissions reduction of 22% compared to a Part L 2013 gas-boiler TER baseline.

7.2 Conclusion

As demonstrated within this report, through the proposed connection into the Haringey district heating network, employment of sustainable design practices and strategies to reduce cooling demand and overheating risk within the development; an energy strategy for the Northumberland Development Project has been developed that is considered compliant with both GLA and London Borough of Haringey policy.

It is noted that the 35% reduction compared to a Part L 2013 gas-boiler TER baseline has not been achieved, however it is considered that the estimated 22% reduction is the greatest result feasible within the context of the development. Furthermore, it is important to note that the presented results are very sensitive to the assumptions made regarding the carbon efficiency of the Haringey District Heating network and this will be updated and reviewed when more information is available.

Appendix A BRUKL outputs

BRUKL outputs have been provided for the three buildings seeking Detailed planning, at the 'LEAN' stage in the energy hierarchy only.

Impacts of the potential district heating connection were post-processed (comparing the carbon efficiency of heat supply from a gas boiler versus the district heating assumptions), and are therefore not included within the BRUKL output. Information regarding this can be provided if required.

Project name

141219_THFC_Stadium_Stage E

As designed

Date: Tue Jun 16 14:17:02 2015

Administrative information

Building Details

Address: Tottenham, London, N17 0AP

Certification tool

Calculation engine: Apache

Calculation engine version: 7.0.2

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 7.0.2

BRUKL compliance check version: v5.2.b.1

Owner Details

Name: THFC

Telephone number: Phone

Address: Tottenham, London, N17 0AP

Certifier details

Name: Name

Telephone number: Phone

Address: Street Address, City, Postcode

Criterion 1: The calculated CO₂ emission rate for the building should not exceed the target

1.1	CO ₂ emission rate from the notional building, kgCO ₂ /m ² .annum	39.8
1.2	Target CO ₂ emission rate (TER), kgCO ₂ /m ² .annum	39.8
1.3	Building CO ₂ emission rate (BER), kgCO ₂ /m ² .annum	37.8
1.4	Are emissions from the building less than or equal to the target?	BER ≤ TER
1.5	Are as built details the same as used in the BER calculations?	Separate submission

Criterion 2: The performance of the building fabric and the building services should achieve reasonable overall standards of energy efficiency

Values which do not meet standards in the 2013 Non-Domestic Building Services Compliance Guide are displayed in red.

2.a Building fabric

Element	U _a -Limit	U _a -Calc	U _i -Calc	Surface where the maximum value occurs*
Wall**	0.35	0.15	0.15	LB1_0048:Surf[1]
Floor	0.25	0.11	0.12	CRPR0094:Surf[0]
Roof	0.25	0.11	0.11	LB1_0077:Surf[1]
Windows***, roof windows, and rooflights	2.2	1.42	1.42	L000009C:Surf[0]
Personnel doors	2.2	-	-	No Personnel doors in building
Vehicle access & similar large doors	1.5	-	-	No Vehicle access doors in building
High usage entrance doors	3.5	-	-	No High usage entrance doors in building
U _a -Limit = Limiting area-weighted average U-values [W/(m ² K)] U _a -Calc = Calculated area-weighted average U-values [W/(m ² K)] U _i -Calc = Calculated maximum individual element U-values [W/(m ² K)] * There might be more than one surface where the maximum U-value occurs. ** 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. N.B.: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.				

Air Permeability	Worst acceptable standard	This building
m ³ /(h.m ²) at 50 Pa	10	3

2.b Building services

The standard values listed below are minimum values for efficiencies and maximum values for SFPs. Refer to the Non-Domestic Building Services Compliance Guide for details.

Whole building lighting automatic monitoring & targeting with alarms for out-of-range values	YES
Whole building electric power factor achieved by power factor correction	<0.9

1- 4 Pipe FCU Central AHU (first floor) (CWS Cooling and FA)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.95	3.4	0.02	1.55	0.75
Standard value	0.91*	2.7	N/A	1.6	0.65
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

2- Mechanical Extract with Heat Emitters

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.95	-	0.15	0	-
Standard value	0.91*	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 gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

3- Natural Vent

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.95	-	0	0	-
Standard value	0.91*	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 gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

4- Underfloor Heating with Min FA

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.95	-	0.04	0	0.65
Standard value	0.91*	N/A	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

5- DX/VRF ICT cooling

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.95	2.5	0.04	0	-
Standard value	0.91*	3.2	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 gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

6- Kitchen Vent (Kitchen Conditioned S&E)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.95	3.2	0	0.8	-
Standard value	0.91*	2.7	N/A	1.6	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

7- Packaged VAV Air System (Balanced Conditioned S&E)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.95	3.2	0	1.55	0.75
Standard value	0.91*	2.7	N/A	1.6	0.65
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

8- DX/VRF Server cooling

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.95	2.5	0.01	0	-
Standard value	0.91*	3.2	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 gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

9- LPHW Radiator based heating

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.95	-	0.2	0	-
Standard value	0.91*	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 gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

10- VAV Air System (Balanced Conditioned S&E)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.95	3.2	0	1.55	0.75
Standard value	0.91*	2.7	N/A	1.6	0.65
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

11- 4 Pipe FCU and local MVHR unit (boxes) (CWS Cooling and FA)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.95	3.4	0	1.25	0.75
Standard value	0.91*	2.7	N/A	1.6	0.65
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

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

Local mechanical ventilation, exhaust, and terminal units

ID	System type in Non-domestic Building Services Compliance Guide
A	Local supply or extract ventilation units serving a single area
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 supply and extract ventilation units serving a single room or zone with heating and heat recovery
E	Local supply and extract ventilation system serving a single area with heating and heat recovery
F	Other local ventilation units
G	Fan-assisted terminal VAV unit
H	Fan coil units
I	Zonal extract system where the fan is remote from the zone with grease filter

Zone name	SFP [W/(I/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
B1-E012_VIPEntry	-	-	-	0.4	-	-	-	1.6	-	-	N/A
B1-E024_EastTunnelClub	-	-	-	0.4	-	-	-	1.6	-	-	N/A
B1-W009_VIPEntry	-	-	-	0.4	-	-	-	1.6	-	-	N/A
B1-W009_VIPEntry	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-E006_AwayTicketOffice	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-E009_Medical	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-E034_NFLTunnelClub	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-E035_Storage	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-E035_Storage	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-E035_Storage	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-E039_Briefing100Person	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-E055_L2andL3Club	-	-	-	0.4	-	-	-	-	-	-	N/A
L0-E057_EastHospitalityEntrance	-	-	-	0.4	-	-	-	-	-	-	N/A
L0-E058_L4andL8LoungeEntry	-	-	-	0.4	-	-	-	-	-	-	N/A
L0-N004_CateringStaffEntryandAccreditation	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-N005_CleaningStaffFacilities	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-N006CleaningStaffFacilities	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-N007A	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-N008_Circulation	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-N015_CateringOffice	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-N016_CateringOffice	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-N017_CashOffices	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-N020_Canteen	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-N021_ChefsOffice	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-N026_MaleChange	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-N026_MaleChange	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-N026_MaleChange	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-N028_FemaleChange	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-N028_FemaleChange	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-N028_FemaleChange	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-N030_GroundskeepingOffice	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-N043_Circulation	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-N044_RetailChillers	-	-	-	-	-	0.4	-	-	-	-	N/A
L0-N045_RetailFreezer	-	-	-	-	-	0.4	-	-	-	-	N/A
L0-N047_IceProd	-	-	-	-	-	0.4	-	-	-	-	N/A
L0-N051_FutureVIPEntry	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-N053_ChilledHolding	-	-	-	-	-	0.4	-	-	-	-	N/A
L0-N053_ChilledHolding	-	-	-	-	-	0.4	-	-	-	-	N/A
L0-N053_ChilledHolding	-	-	-	-	-	0.4	-	-	-	-	N/A
L0-N058_ChillPlate	-	-	-	-	-	0.4	-	-	-	-	N/A
L0-N060_ChillPrep	-	-	-	-	-	0.4	-	-	-	-	N/A
L0-N061_HospitalityFreezer	-	-	-	-	-	0.4	-	-	-	-	N/A
L0-N062_HospitalityChiller	-	-	-	-	-	0.4	-	-	-	-	N/A

Zone name	SFP [W/(I/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
L0-N065_Circulation	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-N065_Circulation	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-S001THFCShop	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-S030_StewardsAccreditation	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-S031_Radios	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-S032_StewardsWC	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-S033_StewardsWC	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-S034A	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-S035_DryingRoom	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-S040_EmergencyCommand	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-S041_StadiumManagementOffice	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-S041_StadiumManagementOffice	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-S041_StadiumManagementOffice	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-S046_Police	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W014_ElecPlant	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W016_KitStore	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W017_TeamStaffLounge	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W018_Corridor	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W020_Lobby	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W024_TeamStaff	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W025_Corridor	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-W026_BootStore	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W028_THFCOffice	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W029_TeamStaff	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W030_HomeWarmup	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W031_Office	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W033_Lobby	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W034_Restaurant	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W035_Manager	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W036_Doctors	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W037_HomeChange	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-W040_PitchBar	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W040_PitchBar	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W041_Corridor	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-W042_Physio	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W044_Corridor	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-W045_MainEntrance	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W045_MainEntrance	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W045_MainEntrance	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W050_MixedZone	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-W050_MixedZone	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-W056_Flash	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W057_Flash	-	-	-	0.4	-	-	-	1.6	-	-	N/A

Zone name	SFP [W/(I/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
L0-W058_Flash	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W059_Flash	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W060_Flash	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W061_Flash	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W062_Flash	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W063_Flash	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W064_Flash	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W066_FlashInterview	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-W067_ChangingRoom	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W070_KitRoom	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W071_DrugTest	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W072_EmergencyMedical	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W073_Corridor	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-W074_MatchOfficials	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W075_Meeting	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W076_Store	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W083_Corridor	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-W083_Corridor	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-W084_Doctors	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W089_WarmUp	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W097_Coach	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W098_Lobby	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-W099_Physio	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W100_Corridor	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-W100_Corridor	-	-	-	1.6	-	-	-	-	-	-	N/A
L0-W101_Lobby	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W102_AV1	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W103_Lobby	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W104_AV2	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W105_PressConference	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W112_TVProduction	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W114_Studio3	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W115_Studio2	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W116_Lobby	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W117_Store	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W119_Studio1	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W120_BSkyB	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W121_MediaWorkroomandLounge	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W126_MediaEntry	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L0-W138_AV3	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L1-E031_HospitalityRetailSpace	-	-	-	0.4	-	-	-	-	-	-	N/A
L1-E031_HospitalityRetailSpace	-	-	-	0.4	-	-	-	-	-	-	N/A
L1-E031_HospitalityRetailSpace	-	-	-	0.4	-	-	-	-	-	-	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	1.9	1.6	0.5	1.1	0.5	1	Zone	Standard
L1-S003_KegStore	-	-	-	-	-	0.4	-	-	-	-	N/A
L1-S021_KegStore	-	-	-	-	-	0.4	-	-	-	-	N/A
L1-W035_KegStore	-	-	-	-	-	0.4	-	-	-	-	N/A
L2-E-UNKNOWN	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E006_Restaurant	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E007_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-E008_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-E009_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-E010_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-E011_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-E012_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-E013_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-E014_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-E015_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E015_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E015_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E015_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E015_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E015_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E022_Lounge	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E023_Bar	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E026_Lobby	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E038_Lounge	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E042_Loge	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E043_Loge	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E044_Loge	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E045_Loge	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E046_Loge	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E048_Loge	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E049_Loge	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E050_Loge	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E051_Loge	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E052_Loge	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E053_Loge	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E054_Loge	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E055_Loge	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E056_Loge	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E057_Loge	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E058_Restaurant	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E060_Bar	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-E076_Bar	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-N005_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-N006_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
L2-W011_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-W017_Lounge	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-W018_Lounge	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-W023_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W024_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W025_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W026_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W027_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W028_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W029_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W030_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W031_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W032_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W033_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W034_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-W035_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W036_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W037_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W038_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W039_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W040_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W041_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W042_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W043_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W044_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W045_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W046_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W047_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W047_Loge	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-W048_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W049_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W050_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W051_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L2-W053_Restaurant	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-W054_Stairs	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-W065_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-W065_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-W065_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-W065_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-W065_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-W065_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-W065_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-W073_Restaurant	-	-	-	0.4	-	-	-	-	-	-	N/A
L2-W074_Bar	-	-	-	0.4	-	-	-	-	-	-	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	1.9	1.6	0.5	1.1	0.5	1	Zone	Standard	
L2-W074_Bar	-	-	-	0.4	-	-	-	-	-	-	N/A	
L2-W082_Restaurant	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-E003_PremiumDinning	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-E005_Lobby	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-E007_Lobby	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-E014_Lobby	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-E037_Stairs	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-E039_BanquetingAndConferencing-	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-E039_BanquetingAndConferencing-	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-E039_BanquetingAndConferencing-	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-E040_CorporateBars	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-E040_CorporateBars	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-E040_CorporateBars	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-E056_St	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-E061_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-N005_Lobby	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-N015_FutureFitOut	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-S006_ExperienceAndEventSpace	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-S029_ExperienceAndEventSpace	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-S035_Lobby	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-S035_Lobby	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-W009_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-W018_RestaurantLounge	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-W019_Bar	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-W019_Bar	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-W020_GoldClub	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-W024_DirectorsLounge	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-W026_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-W026_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-W026_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-W026_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-W026_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-W026_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-W030_Lounge	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-W032_Restaurant	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-W033_Bar	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-W034_GoldClub	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-W050_Lobby	-	-	-	0.4	-	-	-	-	-	-	N/A	
L3-W060_PremiumDining	-	-	-	0.4	-	-	-	-	-	-	N/A	
L4-107_FirstAld	-	-	-	0.4	-	-	-	-	-	-	N/A	
L4-E002_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A	
L4-E003_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A	
L4-E004_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A	

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
L4-E005_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E006_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E007_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E009_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E010_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E011_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E012_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E013_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E014_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E015_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E016_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E017_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E018_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E019_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E020_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E021_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E022_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E023_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E024_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E025_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E026_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E027_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E028_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E029_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E030_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E031_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E032_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E033_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E034_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E035_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E036_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E037_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E038_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E039_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E040_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E041_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E042_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E043_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E044_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E045_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E046_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E047_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E048_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	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	1.9	1.6	0.5	1.1	0.5	1	Zone	Standard
L4-E049_Box	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E050_BoxSupport	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-E053_Lobby	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-E071_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-E071_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-E071_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-E071_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-N002_Balcony	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-N021_Concourse	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W012_Lobby	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W013_SuperSuiteF	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W016_Lobby	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W017_SuperSuiteE	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W018_Lobby	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W021_SuperSuiteD	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W022_Lobby	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W025_SuperSuiteC	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W026_Lobby	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W029_SuperSuiteB	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W030_Lobby	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W033_SuperSuiteA	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W037_FandB	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W039_FandB	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W040_Lobby	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W042_Restaurant	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W042_Restaurant	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W044_St	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W045_Restaurant	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W046_Dinning	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W047_FandB	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W049_PlatinumLounge	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W050_Restaurant	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W052_Concourse	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W052_Concourse	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W052_Concourse	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W054_Dinning	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W055_Lobby	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W056_Dinning	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W057_Dinning	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W066_Lobby	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W067_SuperSuiteA	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W068_Lobby	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W071_SuperSuiteB	-	-	-	0.4	-	-	-	1.3	-	-	N/A

Zone name	SFP [W/(I/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
L4-W072_Lobby	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W075_SuperSuiteC	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W076_Lobby	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W079_SuperSuiteD	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W080_Lobby	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W083_SuperSuiteE	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W084_Lobby	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W087_SuperSuiteF	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W088_Lobby	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W091_SuperSuiteG	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W092_StudioSuite	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W093_Lobby	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W094_TVStudio	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W097_Lobby	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W098_St	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W099_Office	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W100_Office	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W101_ControlRoom	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W101_ControlRoom	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W102_BoxSupport	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W103_WC	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W104_Lobby	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W104_Lobby	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W105_MeetingRoom	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L4-W106_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L4-W106_Corridor	-	-	-	0.4	-	-	-	-	-	-	N/A
L6-W-012_Office	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L6-W009_Office	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L6-W010_Office	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L6-W011_Office	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L6-W015_Office	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L6-W021_LiftLobby	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L6-W022_ChairmansSuite	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L6-W023_MeetingRoom	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L6-W024_WC	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L6-W032_St	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L6-W033_St	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L6-W034_Office	-	-	-	0.4	-	-	-	1.3	-	-	N/A
L7-W004_OpenPlanOffice	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L7-W004_OpenPlanOffice	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L7-W006_Office	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L7-W007_Office	-	-	-	0.4	-	-	-	1.6	-	-	N/A
L8-E006_Stairs	-	-	-	0.4	-	-	-	1.6	-	-	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	1.9	1.6	0.5	1.1	0.5	1	Zone	Standard	
L8-E007_LiftLobby	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
L8-W006_Stairs	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
L8-W007_LiftLobby	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
L9-E004_Corridor	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
L9-E012_SkyLounge	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
L9-E012_SkyLounge	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
L9-E012_SkyLounge	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
L9-E012_SkyLounge	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
L9-E012_SkyLounge	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
L9-N003_SkyBridgeDining	-	-	-	0.4	-	-	-	1.3	-	-	N/A	
L9-S002_SkyBox	-	-	-	0.4	-	-	-	1.3	-	-	N/A	
L9-S003_SkyBox	-	-	-	0.4	-	-	-	1.3	-	-	N/A	
L9-S004_SkyBox	-	-	-	0.4	-	-	-	1.3	-	-	N/A	
L9-S005_SkyBox	-	-	-	0.4	-	-	-	1.3	-	-	N/A	
L9-S006_SkyBox	-	-	-	0.4	-	-	-	1.3	-	-	N/A	
L9-S007_SkyBox	-	-	-	0.4	-	-	-	1.3	-	-	N/A	
L9-S008_SkyBox	-	-	-	0.4	-	-	-	1.3	-	-	N/A	
L9-W001_SkyBox	-	-	-	0.4	-	-	-	1.3	-	-	N/A	
L9-W002_SkyBox	-	-	-	0.4	-	-	-	1.3	-	-	N/A	
L9-W003_SkyBox	-	-	-	0.4	-	-	-	1.3	-	-	N/A	
L9-W005_SkyBox	-	-	-	0.4	-	-	-	1.3	-	-	N/A	
L9-W006_WC	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
L9-W013_SkyLounge	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
L9-W013_SkyLounge	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
L9-W013_SkyLounge	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
L9-W022_Box	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
L9-W024_Corridor	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
VOID	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
VOID	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
VOID	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
VOID	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
VOID	-	-	-	0.4	-	-	-	-	-	-	N/A	
VOID	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
VOID	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
VOID	-	-	-	0.4	-	-	-	-	-	-	N/A	
VOID	-	-	-	0.4	-	-	-	-	-	-	N/A	
VOID	-	-	-	0.4	-	-	-	-	-	-	N/A	
VOID	-	-	-	0.4	-	-	-	-	-	-	N/A	

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
B1-E012_VIPEntry		-	160	-	92
B1-E020_WCM		-	160	-	190

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
B1-E021_Store		80	-	-	10
B1-E022_Store		80	-	-	12
B1-E023_Plant		80	-	-	35
B1-E024_EastTunnelClub		-	160	-	3365
B1-E025_WCF		-	160	-	261
B1-E026_Pantry		80	-	-	13
B1-E027_Store		80	-	-	10
B1-E028_MWC		-	160	-	44
B1-E028_MWC		-	160	-	165
B1-W009_VIPEntry		-	160	-	63
B1-W009_VIPEntry		-	160	-	382
L0-E002_Security		80	-	-	229
L0-E006_AwayTicketOffice		80	-	-	275
L0-E007_ITIntake		80	-	-	102
L0-E008_MedicalStore		80	-	-	27
L0-E009_Medical		80	-	-	77
L0-E010_HazardousWasteRecycling		-	160	-	173
L0-E012_PhotographersSuite		-	160	-	932
L0-E013_MatchDayPitchGrowLightStore		80	-	-	461
L0-E014_Lobby		-	160	-	39
L0-E017_rom		-	160	-	35
L0-E032_Store		80	-	-	50
L0-E033_ITRoom		80	-	-	44
L0-E034_NFLTunnelClub		-	160	-	1402
L0-E035_Storage		80	-	-	101
L0-E035_Storage		80	-	-	1175
L0-E035_Storage		80	-	-	187
L0-E036_KitchenSupport		-	160	-	553
L0-E039_Briefing100Person		80	-	-	944
L0-E040_ITRoom		80	-	-	39
L0-E046_BreakRoom		-	160	-	78
L0-E053_Plant		80	-	-	84
L0-E055_L2andL3Club		-	160	-	571
L0-E057_EastHospitalityEntrance		-	160	-	863
L0-E058_L4andL8LoungeEntry		-	160	-	766
L0-E060_Stairs		-	160	-	82
L0-N001_ITIntake		80	-	-	108
L0-N002_SecurityOffice		80	-	-	179
L0-N003_Store		80	-	-	16
L0-N004_CateringStaffEntryandAccreditation		-	160	-	514
L0-N005_CleaningStaffFacilities		80	-	-	409
L0-N006CleaningStaffFacilities		80	-	-	402
L0-N007A		-	160	-	1456

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
L0-N008_Circulation		-	160	-	617
L0-N015_CateringOffice		80	-	-	478
L0-N016_CateringOffice		80	-	-	538
L0-N017_CashOffices		80	-	-	374
L0-N018_WC		-	160	-	177
L0-N019_WC		-	160	-	162
L0-N020_Canteen		-	160	-	177
L0-N021_ChefsOffice		80	-	-	280
L0-N022_Store		80	-	-	19
L0-N023_Store		80	-	-	23
L0-N024_Uniforms		80	-	-	287
L0-N025_IT		80	-	-	38
L0-N026_MaleChange		-	160	-	31
L0-N026_MaleChange		-	160	-	21
L0-N026_MaleChange		-	160	-	272
L0-N027_StaffStorage		80	-	-	150
L0-N028_FemaleChange		-	160	-	272
L0-N028_FemaleChange		-	160	-	31
L0-N028_FemaleChange		-	160	-	21
L0-N029_GroundskeepingEquipmentStore		80	-	-	466
L0-N030_GroundskeepingOffice		80	-	-	401
L0-N043_Circulation		-	160	-	237
L0-N044_RetailChillers		80	-	-	577
L0-N045_RetailFreezer		80	-	-	665
L0-N047_IceProd		80	-	-	417
L0-N048_LinenSt		-	160	-	96
L0-N049_PaperSt		-	160	-	135
L0-N050_Curculation		-	160	-	34
L0-N051_FutureVIPEntry		-	160	-	215
L0-N053_ChilledHolding		80	-	-	908
L0-N053_ChilledHolding		80	-	-	75
L0-N053_ChilledHolding		80	-	-	82
L0-N054_KitchenWashandCrockeryStore		-	160	-	996
L0-N056_Plant		80	-	-	52
L0-N057_ProductionKitchen		-	160	-	4728
L0-N058_ChillPlate		80	-	-	269
L0-N060_ChillPrep		80	-	-	196
L0-N061_HospitalityFreezer		80	-	-	328
L0-N062_HospitalityChiller		80	-	-	701
L0-N065_Circulation		-	160	-	87
L0-N065_Circulation		-	160	-	374
L0-S001THFCShop		-	160	80	24345
L0-S012_RetailStorage		80	-	-	499

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
L0-S015_Plant		80	-	-	75
L0-S017_ITRoom		80	-	-	47
L0-S018_BallBoysandGirls		-	160	-	384
L0-S020_Security		80	-	-	273
L0-S022_ACWC		-	160	-	49
L0-S023_Store		80	-	-	9
L0-S024_Lobby		-	160	-	76
L0-S025_WCM		-	160	-	88
L0-S025_WCM		-	160	-	48
L0-S025_WCM		-	160	-	62
L0-S026_WCF		-	160	-	88
L0-S026_WCF		-	160	-	84
L0-S027_Plant		80	-	-	372
L0-S028_IT		80	-	-	60
L0-S029_Office		80	-	-	177
L0-S030_StewardsAccreditation		80	-	-	1910
L0-S031_Radios		80	-	-	272
L0-S032_StewardsWC		-	160	-	158
L0-S033_StewardsWC		-	160	-	147
L0-S034A		-	160	-	406
L0-S035_DryingRoom		80	-	-	314
L0-S036_FemaleChangeandWC		-	160	-	113
L0-S037_MaleChangeandWC		-	160	-	103
L0-S040_EmergencyCommand		80	-	-	712
L0-S041_StadiumManagementOffice		80	-	-	280
L0-S041_StadiumManagementOffice		80	-	-	1000
L0-S041_StadiumManagementOffice		80	-	-	597
L0-S046_Police		80	-	-	1608
L0-W014_ElecPlant		80	-	-	89
L0-W014_ElecPlant		80	-	-	300
L0-W015_SpaPlant		80	-	-	87
L0-W016_KitStore		80	-	-	51
L0-W017_TeamStaffLounge		-	160	-	136
L0-W018_Corridor		-	160	-	75
L0-W020_Lobby		-	160	-	91
L0-W024_TeamStaff		80	-	-	380
L0-W025_Corridor		-	160	-	229
L0-W026_BootStore		80	-	-	28
L0-W027_WCChange		-	160	-	68
L0-W028_THFCOffice		80	-	-	357
L0-W029_TeamStaff		80	-	-	194
L0-W030_HomeWarmup		-	160	-	367
L0-W031_Office		80	-	-	198

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
L0-W032_Pantry		-	160	-	580
L0-W033_Lobby		-	160	-	30
L0-W034_Restaurant		-	160	-	433
L0-W035_Manager		80	-	-	389
L0-W036_Doctors		80	-	-	281
L0-W037_HomeChange		-	160	-	221
L0-W038_WC		-	160	-	80
L0-W040_PitchBar		-	160	-	428
L0-W040_PitchBar		-	160	-	24
L0-W041_Corridor		-	160	-	32
L0-W042_Physio		-	160	-	189
L0-W044_Corridor		-	160	-	250
L0-W045_MainEntrance		-	160	-	65
L0-W045_MainEntrance		-	160	-	434
L0-W045_MainEntrance		-	160	-	1546
L0-W049_Showers		-	160	-	82
L0-W050_MixedZone		-	160	-	92
L0-W050_MixedZone		-	160	-	163
L0-W050_MixedZone		-	160	-	598
L0-W056_Flash		80	-	-	150
L0-W057_Flash		80	-	-	161
L0-W058_Flash		80	-	-	150
L0-W059_Flash		80	-	-	150
L0-W060_Flash		80	-	-	161
L0-W061_Flash		80	-	-	150
L0-W062_Flash		80	-	-	150
L0-W063_Flash		80	-	-	161
L0-W064_Flash		80	-	-	150
L0-W065_Store		80	-	-	43
L0-W066_FlashInterview		-	160	-	163
L0-W067_ChangingRoom		-	160	-	195
L0-W069_Showers		-	160	-	66
L0-W070_KitRoom		80	-	-	38
L0-W071_DrugTest		80	-	-	338
L0-W072_EmergencyMedical		80	-	-	432
L0-W073_Corridor		-	160	-	80
L0-W074_MatchOfficials		80	-	-	519
L0-W075_Meeting		80	-	-	327
L0-W076_Store		80	-	-	27
L0-W077_IT		80	-	-	41
L0-W080_CirculationStair		-	160	-	45
L0-W081_Store		80	-	-	11
L0-W083_Corridor		-	160	-	34

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
L0-W083_Corridor		-	160	-	113
L0-W084_Doctors		80	-	-	268
L0-W085_St		-	160	-	32
L0-W088_ElecPlant		80	-	-	130
L0-W089_WarmUp		-	160	-	353
L0-W097_Coach		-	160	-	117
L0-W098_Lobby		-	160	-	138
L0-W099_Physio		-	160	-	155
L0-W100_Corridor		-	160	-	60
L0-W100_Corridor		-	160	-	724
L0-W101_Lobby		-	160	-	25
L0-W102_AV1		-	160	-	182
L0-W103_Lobby		-	160	-	89
L0-W104_AV2		-	160	-	94
L0-W105_PressConference		-	160	-	1238
L0-W106_Store		80	-	-	35
L0-W108_Store		80	-	-	17
L0-W108_Store		80	-	-	17
L0-W109_Store		80	-	-	17
L0-W110_Store		80	-	-	17
L0-W112_TVProduction		-	160	-	254
L0-W113_IT		80	-	-	48
L0-W114_Studio3		-	160	-	152
L0-W115_Studio2		-	160	-	257
L0-W116_Lobby		-	160	-	26
L0-W117_Store		80	-	-	15
L0-W119_Studio1		-	160	-	230
L0-W120_BSkyB		-	160	-	358
L0-W121_MediaWorkroomandLounge		-	160	-	2178
L0-W122_MobileOperators		-	160	-	134
L0-W123_Gas		80	-	-	70
L0-W126_MediaEntry		-	160	-	181
L0-W127_ACWC		-	160	-	52
L0-W129_WCM		-	160	-	94
L0-W129_WCM		-	160	-	81
L0-W134_DisabledFansEntry		-	160	-	59
L0-W135_Store		80	-	-	15
L0-W136_WCF		-	160	-	179
L0-W138_AV3		-	160	-	119
L1-E026_Stairs		-	160	-	82
L1-E031_HospitalityRetailSpace		-	160	80	33
L1-E031_HospitalityRetailSpace		-	160	80	1371
L1-E031_HospitalityRetailSpace		-	160	80	0

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
L1-E045_FandB		-	160	-	516
L1-E048_ElecPlant		90	-	-	56
L1-N007_ITRoom		80	-	-	2072
L1-N021_NorthClubEntry		-	160	-	227
L1-N037_IT		80	-	-	60
L1-S003_KegStore		80	-	-	490
L1-S006_Kitchen		-	160	-	1242
L1-S010_IT		80	-	-	38
L1-S015_IT		80	-	-	38
L1-S019_Kitchen		-	160	-	1195
L1-S021_KegStore		80	-	-	496
L1-W015_IT_PAVA		80	-	-	124
L1-W035_KegStore		80	-	-	497
L1-W051_IT		80	-	-	58
L2-E-UNKNOWN		80	-	-	140
L2-E001WCM		-	160	-	169
L2-E003_WCF		-	160	-	139
L2-E004_ACWC		-	160	-	62
L2-E006_Restaurant		-	160	-	101
L2-E006_Restaurant		-	160	-	791
L2-E007_Box		-	160	-	226
L2-E008_Box		-	160	-	226
L2-E009_Box		-	160	-	227
L2-E010_Box		-	160	-	228
L2-E011_Box		-	160	-	228
L2-E012_Box		-	160	-	229
L2-E013_Box		-	160	-	227
L2-E014_Box		-	160	-	228
L2-E015_Corridor		-	160	-	233
L2-E015_Corridor		-	160	-	112
L2-E015_Corridor		-	160	-	1511
L2-E015_Corridor		-	160	-	43
L2-E015_Corridor		-	160	-	113
L2-E015_Corridor		-	160	-	151
L2-E017_FirstAid		-	160	-	57
L2-E020_Lobby		-	160	-	86
L2-E021_IT		80	-	-	57
L2-E022_Lounge		-	160	-	89
L2-E023_Bar		-	160	-	338
L2-E024_WCM		-	160	-	138
L2-E026_Lobby		-	160	-	30
L2-E027_Store		80	-	-	13
L2-E028_ACWC		-	160	-	50

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
L2-E029_WCF		-	160	-	258
L2-E030_Kitchen		-	160	-	2133
L2-E033_Stairs		-	160	-	87
L2-E034_Stairs		-	160	-	163
L2-E038_Lounge		-	160	-	395
L2-E040_Stairs		-	160	-	87
L2-E042_Loge		80	-	-	154
L2-E043_Loge		80	-	-	154
L2-E044_Loge		80	-	-	220
L2-E045_Loge		80	-	-	220
L2-E046_Loge		80	-	-	154
L2-E048_Loge		80	-	-	207
L2-E049_Loge		80	-	-	204
L2-E050_Loge		80	-	-	204
L2-E051_Loge		80	-	-	204
L2-E052_Loge		80	-	-	154
L2-E053_Loge		80	-	-	154
L2-E054_Loge		80	-	-	220
L2-E055_Loge		80	-	-	220
L2-E056_Loge		80	-	-	152
L2-E057_Loge		80	-	-	152
L2-E058_Restaurant		-	160	-	1302
L2-E060_Bar		-	160	-	537
L2-E071_WCM		-	160	-	29
L2-E071_WCM		-	160	-	211
L2-E073_ACWC		-	160	-	56
L2-E075_WCF		-	160	-	218
L2-E076_Bar		-	160	-	357
L2-E085_IT		80	-	-	46
L2-N001_WCF		-	160	-	244
L2-N002_WCM		-	160	-	172
L2-N004_ACWC		-	160	-	62
L2-N005_Box		-	160	-	225
L2-N006_Box		-	160	-	227
L2-N035_IT		80	-	-	43
L2-S010_IT		80	-	-	46
L2-W006_WC		-	160	-	208
L2-W011_Corridor		-	160	-	213
L2-W011_Corridor		-	160	-	78
L2-W014_ACWC		-	160	-	54
L2-W016_WCF		-	160	-	183
L2-W017_Lounge		-	160	-	451
L2-W018_Lounge		-	160	-	426

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
L2-W022_IT		80	-	-	53
L2-W023_Box		-	160	-	251
L2-W024_Box		-	160	-	316
L2-W025_Box		-	160	-	251
L2-W026_Box		-	160	-	316
L2-W027_Box		-	160	-	320
L2-W028_Box		-	160	-	320
L2-W029_Box		-	160	-	316
L2-W030_Box		-	160	-	320
L2-W031_Box		-	160	-	316
L2-W032_Box		-	160	-	320
L2-W033_Box		-	160	-	276
L2-W034_Corridor		-	160	-	67
L2-W035_Box		-	160	-	316
L2-W036_Box		-	160	-	280
L2-W037_Box		-	160	-	316
L2-W038_Box		-	160	-	320
L2-W039_Box		-	160	-	320
L2-W040_Box		-	160	-	316
L2-W041_Box		-	160	-	320
L2-W042_Box		-	160	-	320
L2-W043_Box		-	160	-	316
L2-W044_Box		-	160	-	316
L2-W045_Box		-	160	-	237
L2-W046_Box		-	160	-	227
L2-W047_Box		-	160	-	227
L2-W047_Loge		80	-	-	154
L2-W048_Box		-	160	-	228
L2-W049_Box		-	160	-	227
L2-W050_Box		-	160	-	229
L2-W051_Box		-	160	-	227
L2-W053_Restaurant		-	160	-	721
L2-W054_Stairs		-	160	-	59
L2-W056_IT		80	-	-	49
L2-W062_St		80	-	-	22
L2-W063_WCM		-	160	-	133
L2-W065_Corridor		-	160	-	183
L2-W065_Corridor		-	160	-	39
L2-W065_Corridor		-	160	-	265
L2-W065_Corridor		-	160	-	563
L2-W065_Corridor		-	160	-	178
L2-W065_Corridor		-	160	-	44
L2-W065_Corridor		-	160	-	267

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
L2-W065_Corridor		-	160	-	246
L2-W072_Kitchen		-	160	-	1019
L2-W073_Restaurant		-	160	-	250
L2-W074_Bar		-	160	-	371
L2-W074_Bar		-	160	-	533
L2-W082_Restaurant		-	160	-	156
L2-W083_WCF		-	160	-	161
L3-E002_St		80	-	-	14
L3-E003_IT		80	-	-	39
L3-E003_PremiumDinning		-	160	-	1089
L3-E005_Kitchen		-	160	-	1564
L3-E005_Lobby		-	160	-	49
L3-E006_Store		80	-	-	14
L3-E007_Lobby		-	160	-	32
L3-E010_BlmStore		80	-	-	16
L3-E011_Lobby		-	160	-	30
L3-E012_Lobby		-	160	-	38
L3-E014_Lobby		-	160	-	41
L3-E016_Stairs		-	160	-	165
L3-E017_WCM		-	160	-	190
L3-E020_St		80	-	-	6
L3-E021_ACWC		-	160	-	50
L3-E022_Lobby		-	160	-	36
L3-E023_Lobby		-	160	-	44
L3-E028_Stairs		-	160	-	179
L3-E030_WCF		-	160	-	227
L3-E030_WCF		-	160	-	113
L3-E033_ElecPlant		80	-	-	147
L3-E034_IT		80	-	-	50
L3-E037_Stairs		-	160	-	159
L3-E039_BanquetingAndConferencing		-	160	-	1765
L3-E039_BanquetingAndConferencing		-	160	-	592
L3-E039_BanquetingAndConferencing		-	160	-	291
L3-E040_CorporateBars		-	160	-	34
L3-E040_CorporateBars		-	160	-	108
L3-E040_CorporateBars		-	160	-	3430
L3-E042_Kitchen		-	160	-	3200
L3-E044_WCF		-	160	-	234
L3-E047_Lobby		-	160	-	55
L3-E048_ACWC		-	160	-	109
L3-E049_ElecPlant		80	-	-	130
L3-E054_Stairs		-	160	-	154
L3-E055_Lobby		-	160	-	35

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
L3-E056_St		80	-	-	9
L3-E057_WCM		-	160	-	230
L3-E057_WCM		-	160	-	66
L3-E058_Stairs		-	160	-	81
L3-E060_LiftLobby		-	160	-	70
L3-E061_Corridor		-	160	-	143
L3-E062_St		80	-	-	36
L3-N001_WCM		-	160	-	137
L3-N002WCF		-	160	-	167
L3-N002_WCF		-	160	-	42
L3-N003_St		80	-	-	13
L3-N004_ACWC		-	160	-	50
L3-N005_Lobby		-	160	-	102
L3-N006_IT		80	-	-	55
L3-N015_FutureFitOut		80	-	-	14
L3-N015_FutureFitOut		80	-	-	14
L3-N015_FutureFitOut		-	160	-	72
L3-N026_IT		80	-	-	61
L3-N027_WCM		-	160	-	268
L3-N028_WCF		-	160	-	130
L3-S006_ExperienceAndEventSpace		-	160	-	1522
L3-S008_St		80	-	-	13
L3-S012_IT		80	-	-	50
L3-S013_St		80	-	-	12
L3-S023_St		80	-	-	12
L3-S024_IT		80	-	-	50
L3-S028_St		80	-	-	14
L3-S029_ExperienceAndEventSpace		-	160	-	66
L3-S029_ExperienceAndEventSpace		-	160	-	1206
L3-S029_ExperienceAndEventSpace		-	160	-	34
L3-S031_IT		80	-	-	38
L3-S033_Kitchen		-	160	-	146
L3-S033_Kitchen		-	160	-	487
L3-S035_Lobby		-	160	-	49
L3-S035_Lobby		-	160	-	214
L3-W001_LiftLobby		-	160	-	70
L3-W003_Stairs		-	160	-	76
L3-W004_WC		-	160	-	448
L3-W006_Store		80	-	-	12
L3-W007_ACWC		-	160	-	48
L3-W008_St		80	-	-	4
L3-W009_Corridor		-	160	-	77
L3-W009_Corridor		-	160	-	4

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
L3-W010_Corridor		-	160	-	105
L3-W011_Lobby		-	160	-	22
L3-W014_Stairs		-	160	-	153
L3-W015_St		80	-	-	18
L3-W017_Lobby		-	160	-	23
L3-W018_RestaurantLounge		-	160	-	426
L3-W019_Bar		-	160	-	138
L3-W019_Bar		-	160	-	469
L3-W020_GoldClub		-	160	-	510
L3-W022_WCM		-	160	-	155
L3-W023_WCF		-	160	-	145
L3-W024_DirectorsLounge		-	160	-	747
L3-W026_Corridor		-	160	-	83
L3-W026_Corridor		-	160	-	97
L3-W026_Corridor		-	160	-	189
L3-W026_Corridor		-	160	-	818
L3-W026_Corridor		-	160	-	1244
L3-W026_Corridor		-	160	-	228
L3-W026_Corridor		-	160	-	271
L3-W027_ACWC		-	160	-	52
L3-W028_Lobby		-	160	-	26
L3-W029_Kitchen		-	160	-	552
L3-W030_Lounge		-	160	-	274
L3-W032_Restaurant		-	160	-	522
L3-W033_Bar		-	160	-	647
L3-W034_GoldClub		-	160	-	502
L3-W035_St		80	-	-	19
L3-W037_Lobby		-	160	-	19
L3-W040_Lobby		-	160	-	19
L3-W041_Stairs		-	160	-	154
L3-W042_Stairs		-	160	-	80
L3-W043_St		80	-	-	20
L3-W044_WCF		-	160	-	194
L3-W045_ACWC		-	160	-	46
L3-W046_WCM		-	160	-	166
L3-W047_St		80	-	-	18
L3-W049_LiftLobby		-	160	-	78
L3-W050_Lobby		-	160	-	45
L3-W053_St		80	-	-	15
L3-W055_ACWC		-	160	-	47
L3-W057_IT		80	-	-	42
L3-W058_Kitchen		-	160	-	1454
L3-W060_PremiumDining		-	160	-	1021

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
L4-107_FirstAld		80	-	-	146
L4-107_FirstAld		80	-	-	165
L4-E002_Box		-	160	-	340
L4-E003_Box		-	160	-	244
L4-E004_Box		-	160	-	243
L4-E005_Box		-	160	-	246
L4-E006_Box		-	160	-	243
L4-E007_Box		-	160	-	245
L4-E008_St		80	-	-	18
L4-E009_Box		-	160	-	313
L4-E010_BoxSupport		80	-	-	9
L4-E011_Box		-	160	-	338
L4-E012_BoxSupport		80	-	-	10
L4-E013_Box		-	160	-	344
L4-E014_BoxSupport		80	-	-	10
L4-E015_Box		-	160	-	338
L4-E016_BoxSupport		80	-	-	10
L4-E017_Box		-	160	-	314
L4-E018_BoxSupport		80	-	-	8
L4-E019_Box		-	160	-	357
L4-E020_BoxSupport		80	-	-	17
L4-E021_Box		-	160	-	361
L4-E022_BoxSupport		80	-	-	16
L4-E023_Box		-	160	-	355
L4-E024_BoxSupport		80	-	-	16
L4-E025_Box		-	160	-	361
L4-E026_BoxSupport		80	-	-	16
L4-E027_Box		-	160	-	358
L4-E028_BoxSupport		80	-	-	16
L4-E029_Box		-	160	-	358
L4-E030_BoxSupport		80	-	-	16
L4-E031_Box		-	160	-	358
L4-E032_BoxSupport		80	-	-	16
L4-E033_Box		-	160	-	358
L4-E034_BoxSupport		80	-	-	16
L4-E035_Box		-	160	-	355
L4-E036_BoxSupport		80	-	-	16
L4-E037_Box		-	160	-	361
L4-E038_BoxSupport		80	-	-	16
L4-E039_Box		-	160	-	355
L4-E040_BoxSupport		80	-	-	16
L4-E041_Box		-	160	-	361
L4-E042_BoxSupport		80	-	-	16

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
L4-E043_Box		-	160	-	355
L4-E044_BoxSupport		80	-	-	16
L4-E045_Box		-	160	-	361
L4-E046_BoxSupport		80	-	-	16
L4-E047_Box		-	160	-	355
L4-E048_BoxSupport		80	-	-	16
L4-E049_Box		-	160	-	361
L4-E050_BoxSupport		80	-	-	16
L4-E053_Lobby		-	160	-	33
L4-E054_LiftLobby		-	160	-	72
L4-E056_Stairs		-	160	-	82
L4-E057_St		80	-	-	16
L4-E058_Stairs		-	160	-	155
L4-E063_Kitchen		-	160	-	1894
L4-E065_IT		80	-	-	47
L4-E066_WCM		-	160	-	18
L4-E066_WCM		-	160	-	171
L4-E067_St		80	-	-	8
L4-E068_WCF		-	160	-	147
L4-E068_WCF		-	160	-	14
L4-E069_ACWC		-	160	-	52
L4-E071_Corridor		-	160	-	0
L4-E071_Corridor		-	160	-	556
L4-E071_Corridor		-	160	-	943
L4-E071_Corridor		-	160	-	189
L4-E074_WCM		-	160	-	160
L4-E075_St		80	-	-	8
L4-E076_WCF		-	160	-	145
L4-E076_WCF		-	160	-	14
L4-E078_Kitchen		-	160	-	821
L4-E078_Kitchen		-	160	-	900
L4-E080_IT		80	-	-	31
L4-E085_Stairs		-	160	-	180
L4-E086_St		80	-	-	30
L4-E090_Lobby		-	160	-	69
L4-N002_Balcony		-	160	-	52
L4-N017_St		80	-	-	7
L4-N018_St		80	-	-	6
L4-N019_IT		80	-	-	38
L4-N021_Concourse		-	160	-	229
L4-N024_St		80	-	-	7
L4-N025_St		80	-	-	6
L4-N026_IT		80	-	-	38

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
L4-S002_Lobby		-	160	-	44
L4-S012_IT		80	-	-	40
L4-S014-IT		80	-	-	41
L4-S024_BoxSupport		80	-	-	24
L4-W001_Lobby		-	160	-	72
L4-W003_Stairs		-	160	-	77
L4-W004_Stairs		-	160	-	154
L4-W008_WC		-	160	-	17
L4-W009_IT		80	-	-	18
L4-W009_IT		80	-	-	45
L4-W010_WC		-	160	-	37
L4-W011_WC		-	160	-	35
L4-W012_Lobby		-	160	-	29
L4-W013_SuperSuiteF		-	160	-	333
L4-W014_WC		-	160	-	39
L4-W015_WC		-	160	-	39
L4-W016_Lobby		-	160	-	20
L4-W017_SuperSuiteE		-	160	-	378
L4-W018_Lobby		-	160	-	20
L4-W019_WC		-	160	-	41
L4-W020_WC		-	160	-	41
L4-W021_SuperSuiteD		-	160	-	426
L4-W022_Lobby		-	160	-	25
L4-W023_WC		-	160	-	36
L4-W024_WC		-	160	-	33
L4-W025_SuperSuiteC		-	160	-	482
L4-W026_Lobby		-	160	-	28
L4-W027_WC		-	160	-	35
L4-W028_WC		-	160	-	37
L4-W029_SuperSuiteB		-	160	-	526
L4-W030_Lobby		-	160	-	30
L4-W031_WC		-	160	-	33
L4-W032_WC		-	160	-	36
L4-W033_SuperSuiteA		-	160	-	542
L4-W034_WCF		-	160	-	146
L4-W035_WCM		-	160	-	174
L4-W036_St		80	-	-	16
L4-W037_FandB		-	160	-	684
L4-W038_ACWC		-	160	-	52
L4-W039_FandB		-	160	-	186
L4-W040_Lobby		-	160	-	58
L4-W041_St		80	-	-	12
L4-W042_Restaurant		-	160	-	21

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
L4-W042_Restaurant		-	160	-	84
L4-W044_St		-	160	15	328
L4-W045_Restaurant		-	160	-	206
L4-W046_Dinning		-	160	-	105
L4-W047_FandB		-	160	-	473
L4-W049_PlatinumLounge		-	160	-	599
L4-W050_Restaurant		-	160	-	207
L4-W052_Concourse		-	160	-	784
L4-W052_Concourse		-	160	-	739
L4-W052_Concourse		-	160	-	221
L4-W054_Dinning		-	160	-	106
L4-W055_Lobby		-	160	-	23
L4-W056_Dinning		-	160	-	84
L4-W057_Dinning		-	160	-	439
L4-W060_Kitchen		-	160	-	899
L4-W062_Lobby		80	-	-	14
L4-W064_WC		-	160	-	57
L4-W066_Lobby		-	160	-	23
L4-W067_SuperSuiteA		-	160	-	522
L4-W068_Lobby		-	160	-	25
L4-W069_WC		-	160	-	58
L4-W071_SuperSuiteB		-	160	-	533
L4-W072_Lobby		-	160	-	29
L4-W073_WC		-	160	-	58
L4-W075_SuperSuiteC		-	160	-	488
L4-W076_Lobby		-	160	-	30
L4-W077_WC		-	160	-	57
L4-W079_SuperSuiteD		-	160	-	471
L4-W080_Lobby		-	160	-	31
L4-W081_WC		-	160	-	57
L4-W083_SuperSuiteE		-	160	-	427
L4-W084_Lobby		-	160	-	33
L4-W085_WC		-	160	-	58
L4-W087_SuperSuiteF		-	160	-	369
L4-W088_Lobby		-	160	-	32
L4-W089_WC		-	160	-	57
L4-W091_SuperSuiteG		-	160	-	311
L4-W092_StudioSuite		-	160	-	424
L4-W093_Lobby		-	160	-	30
L4-W094_TVStudio		-	160	-	246
L4-W095_WC		-	160	-	51
L4-W096_WC		-	160	-	47
L4-W097_Lobby		-	160	-	28

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
L4-W098_St		80	-	-	15
L4-W099_Office		80	-	-	151
L4-W100_Office		80	-	-	171
L4-W101_ControlRoom		80	-	-	44
L4-W101_ControlRoom		80	-	-	695
L4-W102_BoxSupport		80	-	-	18
L4-W103_WC		-	160	-	40
L4-W104_Lobby		-	160	-	34
L4-W104_Lobby		-	160	-	24
L4-W105_MeetingRoom		80	-	-	269
L4-W106_Corridor		-	160	-	331
L4-W106_Corridor		-	160	-	101
L4-W108_WC		-	160	-	52
L4-W109_WC		-	160	-	53
L4-W110_IT		80	-	-	44
L4-W113_LiftLobby		-	160	-	80
L4-W115_Stairs		-	160	-	82
L4-W116_Stairs		-	160	-	156
L5-E004_KegStore		80	-	-	15
L5-E015_IT		80	-	-	39
L5-E015_IT		80	-	-	30
L5-E016_FirstAid		80	-	-	192
L5-N005_IT		80	-	-	36
L5-N005_ST		80	-	-	18
L5-N016_IT		80	-	-	59
L5-N028_IT		80	-	-	37
L5-N028_IT		80	-	-	38
L5-S004_IT		80	-	-	46
L5-S005_IT		80	-	-	46
L5-W037_IT		80	-	-	27
L5-W037_IT		80	-	-	40
L6-W-012_Office		80	-	-	183
L6-W009_Office		80	-	-	199
L6-W010_Office		80	-	-	163
L6-W011_Office		80	-	-	180
L6-W013_IT		80	-	-	38
L6-W015_Office		80	-	-	4998
L6-W017_St		80	-	-	12
L6-W021_LiftLobby		-	160	-	166
L6-W022_ChairmansSuite		80	-	-	572
L6-W023_MeetingRoom		80	-	-	178
L6-W024_WC		-	160	-	67
L6-W026_WC		-	160	-	37

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
L6-W027_WC		-	160	-	45
L6-W028_WC		-	160	-	44
L6-W029_WC		-	160	-	44
L6-W030_WC		-	160	-	45
L6-W031_WC		-	160	-	37
L6-W032_St		80	-	-	15
L6-W033_St		80	-	-	15
L6-W034_Office		80	-	-	363
L7-W004_OpenPlanOffice		80	-	-	3700
L7-W004_OpenPlanOffice		80	-	-	674
L7-W006_Office		80	-	-	443
L7-W007_Office		80	-	-	333
L7-W008_WC		-	160	-	35
L7-W009_WC		-	160	-	37
L7-W010_WC		-	160	-	37
L7-W011_ACWC		-	160	-	43
L8-E005_Store		80	-	-	13
L8-E006_Stairs		-	160	-	75
L8-E007_LiftLobby		-	160	-	207
L8-W005_Store		80	-	-	12
L8-W006_Stairs		-	160	-	81
L8-W007_LiftLobby		-	160	-	278
L9-E004_Corridor		-	160	-	221
L9-E006_IT		80	-	-	25
L9-E007_St		80	-	-	15
L9-E008_Stairs		-	160	-	43
L9-E009_Lobby		-	160	-	24
L9-E012_SkyLounge		-	160	-	295
L9-E012_SkyLounge		-	160	-	61
L9-E012_SkyLounge		-	160	-	319
L9-E012_SkyLounge		-	160	-	394
L9-E012_SkyLounge		-	160	-	1523
L9-E013_Stair		-	160	-	48
L9-E014_Kitchen		-	160	-	394
L9-E015_ACWC		-	160	-	42
L9-E016_Stairs		-	160	-	50
L9-E018_St		80	-	-	12
L9-N002_Kitchen		-	160	-	226
L9-N003_SkyBridgeDining		-	160	-	1660
L9-N004_Kitchen		-	160	-	246
L9-N005-E003_WCs_and_Store		80	-	-	30
L9-S002_SkyBox		-	160	-	112
L9-S003_SkyBox		-	160	-	113

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
L9-S004_SkyBox		-	160	-	114
L9-S005_SkyBox		-	160	-	114
L9-S006_SkyBox		-	160	-	115
L9-S007_SkyBox		-	160	-	116
L9-S008_SkyBox		-	160	-	116
L9-W001_SkyBox		-	160	-	118
L9-W002_SkyBox		-	160	-	119
L9-W003_SkyBox		-	160	-	119
L9-W004_IT		80	-	-	30
L9-W005_SkyBox		-	160	-	216
L9-W006_WC		-	160	-	42
L9-W007_Corridor		-	160	-	232
L9-W008_Store		80	-	-	12
L9-W009_Lobby		-	160	-	20
L9-W010_Stair		-	160	-	48
L9-W011_WC		-	160	-	42
L9-W012_Kitchen		-	160	-	431
L9-W013_SkyLounge		-	160	-	2076
L9-W013_SkyLounge		-	160	-	84
L9-W013_SkyLounge		-	160	-	192
L9-W019_Lobby		-	160	-	18
L9-W020_IT		80	-	-	44
L9-W021_Stairs		-	160	-	44
L9-W022_Box		-	160	-	189
L9-W023_WC		-	160	-	39
L9-W024_Corridor		-	160	-	220
L9-W025-N001_WCs_and_Store		80	-	-	29
VOID		-	160	-	0
VOID		-	160	-	121
VOID		-	160	-	167
VOID		-	160	-	150
VOID		-	160	-	282
VOID		-	160	-	7
VOID		-	160	-	187
VOID		-	160	-	608
VOID		-	160	-	211
VOID		-	160	-	236
L6-E001_ITServer		80	-	-	1167

Criterion 3: The spaces in the building should have appropriate passive control measures to limit solar gains

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
B1-E012_VIPEntry	N/A	N/A
B1-E024_EastTunnelClub	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
B1-W009_VIPEntry	N/A	N/A
B1-W009_VIPEntry	N/A	N/A
L0-E002_Security	N/A	N/A
L0-E006_AwayTicketOffice	N/A	N/A
L0-E007_ITIntake	N/A	N/A
L0-E009_Medical	N/A	N/A
L0-E012_PhotographersSuite	N/A	N/A
L0-E033_ITRoom	N/A	N/A
L0-E034_NFLTunnelClub	N/A	N/A
L0-E035_Storage	N/A	N/A
L0-E035_Storage	N/A	N/A
L0-E035_Storage	N/A	N/A
L0-E036_KitchenSupport	N/A	N/A
L0-E039_Briefing100Person	N/A	N/A
L0-E040_ITRoom	N/A	N/A
L0-E055_L2andL3Club	YES (+59.6%)	NO
L0-E057_EastHospitalityEntrance	YES (+51%)	NO
L0-E058_L4andL8LoungeEntry	YES (+38.7%)	NO
L0-N002_SecurityOffice	N/A	N/A
L0-N005_CleaningStaffFacilities	N/A	N/A
L0-N006CleaningStaffFacilities	N/A	N/A
L0-N007A	N/A	N/A
L0-N015_CateringOffice	N/A	N/A
L0-N016_CateringOffice	N/A	N/A
L0-N017_CashOffices	N/A	N/A
L0-N020_Canteen	N/A	N/A
L0-N021_ChefsOffice	N/A	N/A
L0-N025_IT	N/A	N/A
L0-N030_GroundskeepingOffice	N/A	N/A
L0-N044_RetailChillers	N/A	N/A
L0-N045_RetailFreezer	N/A	N/A
L0-N047_IceProd	N/A	N/A
L0-N051_FutureVIPEntry	N/A	N/A
L0-N053_ChilledHolding	N/A	N/A
L0-N053_ChilledHolding	N/A	N/A
L0-N053_ChilledHolding	N/A	N/A
L0-N054_KitchenWashandCrockeryStore	N/A	N/A
L0-N057_ProductionKitchen	N/A	N/A
L0-N058_ChillPlate	N/A	N/A
L0-N060_ChillPrep	N/A	N/A
L0-N061_HospitalityFreezer	N/A	N/A
L0-N062_HospitalityChiller	N/A	N/A
L0-S001THFCShop	N/A	N/A
L0-S017_ITRoom	N/A	N/A
L0-S020_Security	N/A	N/A
L0-S028_IT	N/A	N/A
L0-S029_Office	N/A	N/A
L0-S030_StewardsAccreditation	N/A	N/A
L0-S031_Radios	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
L0-S040_EmergencyCommand	NO (-100%)	NO
L0-S041_StadiumManagementOffice	N/A	N/A
L0-S041_StadiumManagementOffice	N/A	N/A
L0-S041_StadiumManagementOffice	N/A	N/A
L0-S046_Police	N/A	N/A
L0-W014_ElecPlant	YES (+25.2%)	NO
L0-W016_KitStore	N/A	N/A
L0-W017_TeamStaffLounge	N/A	N/A
L0-W018_Corridor	N/A	N/A
L0-W020_Lobby	N/A	N/A
L0-W024_TeamStaff	N/A	N/A
L0-W026_BootStore	N/A	N/A
L0-W028_THFCOffice	N/A	N/A
L0-W029_TeamStaff	N/A	N/A
L0-W030_HomeWarmup	N/A	N/A
L0-W031_Office	N/A	N/A
L0-W032_Pantry	N/A	N/A
L0-W033_Lobby	N/A	N/A
L0-W034_Restaurant	N/A	N/A
L0-W035_Manager	N/A	N/A
L0-W036_Doctors	N/A	N/A
L0-W040_PitchBar	N/A	N/A
L0-W040_PitchBar	N/A	N/A
L0-W042_Physio	N/A	N/A
L0-W045_MainEntrance	YES (+28.9%)	NO
L0-W045_MainEntrance	NO (-75.4%)	NO
L0-W045_MainEntrance	YES (+95.8%)	NO
L0-W056_Flash	N/A	N/A
L0-W057_Flash	N/A	N/A
L0-W058_Flash	N/A	N/A
L0-W059_Flash	N/A	N/A
L0-W060_Flash	N/A	N/A
L0-W061_Flash	N/A	N/A
L0-W062_Flash	N/A	N/A
L0-W063_Flash	N/A	N/A
L0-W064_Flash	N/A	N/A
L0-W067_ChangingRoom	N/A	N/A
L0-W070_KitRoom	N/A	N/A
L0-W071_DrugTest	N/A	N/A
L0-W072_EmergencyMedical	N/A	N/A
L0-W074_MatchOfficials	N/A	N/A
L0-W075_Meeting	N/A	N/A
L0-W076_Store	N/A	N/A
L0-W077_IT	N/A	N/A
L0-W084_Doctors	N/A	N/A
L0-W089_WarmUp	N/A	N/A
L0-W097_Coach	N/A	N/A
L0-W099_Physio	N/A	N/A
L0-W101_Lobby	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
L0-W102_AV1	N/A	N/A
L0-W103_Lobby	N/A	N/A
L0-W104_AV2	N/A	N/A
L0-W105_PressConference	N/A	N/A
L0-W112_TVProduction	N/A	N/A
L0-W113_IT	N/A	N/A
L0-W114_Studio3	NO (-99.9%)	NO
L0-W115_Studio2	N/A	N/A
L0-W116_Lobby	N/A	N/A
L0-W117_Store	N/A	N/A
L0-W119_Studio1	N/A	N/A
L0-W120_BSkyB	N/A	N/A
L0-W121_MediaWorkroomandLounge	N/A	N/A
L0-W126_MediaEntry	N/A	N/A
L0-W138_AV3	N/A	N/A
L1-E031_HospitalityRetailSpace	NO (-42.6%)	NO
L1-E031_HospitalityRetailSpace	YES (+0.4%)	NO
L1-E031_HospitalityRetailSpace	NO (-36%)	NO
L1-N007_ITRoom	NO (-99.6%)	NO
L1-N021_NorthClubEntry	NO (-29.8%)	NO
L1-N037_IT	N/A	N/A
L1-S003_KegStore	N/A	N/A
L1-S006_Kitchen	N/A	N/A
L1-S010_IT	N/A	N/A
L1-S015_IT	N/A	N/A
L1-S019_Kitchen	N/A	N/A
L1-S021_KegStore	N/A	N/A
L1-W015_IT_PAVA	N/A	N/A
L1-W035_KegStore	N/A	N/A
L1-W051_IT	N/A	N/A
L2-E-UNKNOWN	NO (-64.1%)	NO
L2-E006_Restaurant	N/A	N/A
L2-E006_Restaurant	YES (+18.3%)	NO
L2-E007_Box	NO (-77.3%)	NO
L2-E008_Box	NO (-77.2%)	NO
L2-E009_Box	NO (-76.2%)	NO
L2-E010_Box	NO (-75.1%)	NO
L2-E011_Box	NO (-74%)	NO
L2-E012_Box	NO (-72%)	NO
L2-E013_Box	NO (-70.5%)	NO
L2-E014_Box	NO (-70.8%)	NO
L2-E015_Corridor	N/A	N/A
L2-E015_Corridor	NO (-62.7%)	NO
L2-E015_Corridor	NO (-61.1%)	NO
L2-E015_Corridor	N/A	N/A
L2-E015_Corridor	NO (-61.8%)	NO
L2-E015_Corridor	NO (-60.7%)	NO
L2-E021_IT	N/A	N/A
L2-E022_Lounge	NO (-71.2%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
L2-E023_Bar	NO (-69.3%)	NO
L2-E026_Lobby	N/A	N/A
L2-E030_Kitchen	YES (+13.2%)	NO
L2-E038_Lounge	NO (-64.1%)	NO
L2-E042_Loge	N/A	N/A
L2-E043_Loge	N/A	N/A
L2-E044_Loge	N/A	N/A
L2-E045_Loge	N/A	N/A
L2-E046_Loge	N/A	N/A
L2-E048_Loge	N/A	N/A
L2-E049_Loge	N/A	N/A
L2-E050_Loge	N/A	N/A
L2-E051_Loge	N/A	N/A
L2-E052_Loge	N/A	N/A
L2-E053_Loge	N/A	N/A
L2-E054_Loge	N/A	N/A
L2-E055_Loge	N/A	N/A
L2-E056_Loge	N/A	N/A
L2-E057_Loge	N/A	N/A
L2-E058_Restaurant	N/A	N/A
L2-E060_Bar	NO (-6.8%)	NO
L2-E076_Bar	NO (-68.2%)	NO
L2-E085_IT	NO (-75.5%)	NO
L2-N005_Box	NO (-80.9%)	NO
L2-N006_Box	NO (-84.8%)	NO
L2-N035_IT	N/A	N/A
L2-S010_IT	N/A	N/A
L2-W011_Corridor	N/A	N/A
L2-W017_Lounge	NO (-17.4%)	NO
L2-W018_Lounge	N/A	N/A
L2-W022_IT	NO (-84.9%)	NO
L2-W023_Box	NO (-78.7%)	NO
L2-W024_Box	NO (-76.5%)	NO
L2-W025_Box	NO (-77.7%)	NO
L2-W026_Box	NO (-74.6%)	NO
L2-W027_Box	NO (-75.5%)	NO
L2-W028_Box	NO (-74.1%)	NO
L2-W029_Box	NO (-73.4%)	NO
L2-W030_Box	NO (-72.6%)	NO
L2-W031_Box	NO (-72.1%)	NO
L2-W032_Box	NO (-71.7%)	NO
L2-W033_Box	NO (-71.3%)	NO
L2-W034_Corridor	NO (-71.2%)	NO
L2-W035_Box	NO (-71.2%)	NO
L2-W036_Box	NO (-71.1%)	NO
L2-W037_Box	NO (-71%)	NO
L2-W038_Box	NO (-71.1%)	NO
L2-W039_Box	NO (-71.2%)	NO
L2-W040_Box	NO (-71.6%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
L2-W041_Box	NO (-71.9%)	NO
L2-W042_Box	NO (-72.5%)	NO
L2-W043_Box	NO (-72.4%)	NO
L2-W044_Box	NO (-74.2%)	NO
L2-W045_Box	NO (-77.6%)	NO
L2-W046_Box	NO (-77.8%)	NO
L2-W047_Box	NO (-77.1%)	NO
L2-W047_Loge	N/A	N/A
L2-W048_Box	NO (-77.9%)	NO
L2-W049_Box	NO (-78.5%)	NO
L2-W050_Box	NO (-79.1%)	NO
L2-W051_Box	NO (-79.7%)	NO
L2-W053_Restaurant	YES (+19.1%)	NO
L2-W054_Stairs	N/A	N/A
L2-W056_IT	N/A	N/A
L2-W065_Corridor	N/A	N/A
L2-W065_Corridor	YES (+32.6%)	NO
L2-W065_Corridor	N/A	N/A
L2-W065_Corridor	NO (-98.3%)	NO
L2-W065_Corridor	N/A	N/A
L2-W065_Corridor	N/A	N/A
L2-W072_Kitchen	N/A	N/A
L2-W073_Restaurant	NO (-99.8%)	NO
L2-W074_Bar	N/A	N/A
L2-W074_Bar	N/A	N/A
L2-W082_Restaurant	NO (-28%)	NO
L3-E003_IT	N/A	N/A
L3-E003_PremiumDinning	NO (-54%)	NO
L3-E005_Kitchen	YES (+37.5%)	NO
L3-E005_Lobby	YES (+65.4%)	NO
L3-E007_Lobby	N/A	N/A
L3-E014_Lobby	YES (+41.5%)	NO
L3-E034_IT	N/A	N/A
L3-E037_Stairs	N/A	N/A
L3-E039_BanquetingAndConferencing	YES (+30%)	NO
L3-E039_BanquetingAndConferencing	YES (+69.2%)	NO
L3-E039_BanquetingAndConferencing	YES (+6.1%)	NO
L3-E040_CorporateBars	N/A	N/A
L3-E040_CorporateBars	NO (-100%)	NO
L3-E040_CorporateBars	NO (-62.5%)	NO
L3-E042_Kitchen	NO (-7.4%)	NO
L3-E056_St	N/A	N/A
L3-E061_Corridor	YES (+48.7%)	NO
L3-N005_Lobby	NO (-73.5%)	NO
L3-N006_IT	N/A	N/A
L3-N015_FutureFitOut	N/A	N/A
L3-N026_IT	N/A	N/A
L3-S006_ExperienceAndEventSpace	NO (-60.9%)	NO
L3-S012_IT	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
L3-S024_IT	N/A	N/A
L3-S029_ExperienceAndEventSpace	NO (-80.9%)	NO
L3-S029_ExperienceAndEventSpace	NO (-67.7%)	NO
L3-S029_ExperienceAndEventSpace	N/A	N/A
L3-S031_IT	N/A	N/A
L3-S033_Kitchen	N/A	N/A
L3-S033_Kitchen	YES (+58.7%)	NO
L3-S035_Lobby	YES (+57%)	NO
L3-S035_Lobby	YES (+3%)	NO
L3-W009_Corridor	NO (-66.8%)	NO
L3-W018_RestaurantLounge	NO (-7.4%)	NO
L3-W019_Bar	N/A	N/A
L3-W019_Bar	N/A	N/A
L3-W020_GoldClub	N/A	N/A
L3-W024_DirectorsLounge	NO (-61.9%)	NO
L3-W026_Corridor	NO (-62.1%)	NO
L3-W026_Corridor	N/A	N/A
L3-W026_Corridor	YES (+4.7%)	NO
L3-W026_Corridor	NO (-62.6%)	NO
L3-W026_Corridor	NO (-69%)	NO
L3-W026_Corridor	YES (+26.8%)	NO
L3-W028_Lobby	N/A	N/A
L3-W029_Kitchen	N/A	N/A
L3-W030_Lounge	N/A	N/A
L3-W032_Restaurant	NO (-5.3%)	NO
L3-W033_Bar	N/A	N/A
L3-W034_GoldClub	N/A	N/A
L3-W050_Lobby	YES (+31.6%)	NO
L3-W057_IT	N/A	N/A
L3-W058_Kitchen	YES (+38.5%)	NO
L3-W060_PremiumDining	YES (+26.2%)	NO
L4-107_FirstAld	N/A	N/A
L4-107_FirstAld	N/A	N/A
L4-E002_Box	NO (-74.1%)	NO
L4-E003_Box	NO (-61.3%)	NO
L4-E004_Box	NO (-57.2%)	NO
L4-E005_Box	NO (-54.7%)	NO
L4-E006_Box	NO (-50.7%)	NO
L4-E007_Box	NO (-47.2%)	NO
L4-E009_Box	NO (-45.5%)	NO
L4-E010_BoxSupport	N/A	N/A
L4-E011_Box	NO (-40.4%)	NO
L4-E012_BoxSupport	NO (-100%)	NO
L4-E013_Box	NO (-36.5%)	NO
L4-E014_BoxSupport	N/A	N/A
L4-E015_Box	NO (-34.7%)	NO
L4-E016_BoxSupport	NO (-100%)	NO
L4-E017_Box	NO (-35%)	NO
L4-E018_BoxSupport	NO (-97.6%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
L4-E019_Box	NO (-65.6%)	NO
L4-E020_BoxSupport	NO (-65.2%)	NO
L4-E021_Box	NO (-31.2%)	NO
L4-E022_BoxSupport	N/A	N/A
L4-E023_Box	NO (-31.2%)	NO
L4-E024_BoxSupport	N/A	N/A
L4-E025_Box	NO (-30.9%)	NO
L4-E026_BoxSupport	N/A	N/A
L4-E027_Box	NO (-30.7%)	NO
L4-E028_BoxSupport	N/A	N/A
L4-E029_Box	NO (-30.5%)	NO
L4-E030_BoxSupport	N/A	N/A
L4-E031_Box	NO (-30.8%)	NO
L4-E032_BoxSupport	N/A	N/A
L4-E033_Box	NO (-30.9%)	NO
L4-E034_BoxSupport	N/A	N/A
L4-E035_Box	NO (-30.8%)	NO
L4-E036_BoxSupport	N/A	N/A
L4-E037_Box	NO (-30.9%)	NO
L4-E038_BoxSupport	N/A	N/A
L4-E039_Box	NO (-32.3%)	NO
L4-E040_BoxSupport	N/A	N/A
L4-E041_Box	NO (-32.8%)	NO
L4-E042_BoxSupport	N/A	N/A
L4-E043_Box	NO (-36.1%)	NO
L4-E044_BoxSupport	N/A	N/A
L4-E045_Box	NO (-40.2%)	NO
L4-E046_BoxSupport	NO (-100%)	NO
L4-E047_Box	NO (-43.8%)	NO
L4-E048_BoxSupport	NO (-100%)	NO
L4-E049_Box	NO (-46.1%)	NO
L4-E050_BoxSupport	N/A	N/A
L4-E053_Lobby	N/A	N/A
L4-E063_Kitchen	NO (-6.9%)	NO
L4-E065_IT	N/A	N/A
L4-E071_Corridor	NO (-44.6%)	NO
L4-E071_Corridor	NO (-22.2%)	NO
L4-E071_Corridor	N/A	N/A
L4-E071_Corridor	NO (-65.8%)	NO
L4-E078_Kitchen	NO (-27.5%)	NO
L4-E078_Kitchen	NO (-14.7%)	NO
L4-E080_IT	N/A	N/A
L4-N002_Balcony	NO (-73.7%)	NO
L4-N019_IT	N/A	N/A
L4-N021_Concourse	NO (-99.8%)	NO
L4-N026_IT	N/A	N/A
L4-S012_IT	N/A	N/A
L4-S014-IT	N/A	N/A
L4-W009_IT	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
L4-W009_IT	N/A	N/A
L4-W012_Lobby	N/A	N/A
L4-W013_SuperSuiteF	NO (-52.1%)	NO
L4-W016_Lobby	N/A	N/A
L4-W017_SuperSuiteE	NO (-45.7%)	NO
L4-W018_Lobby	N/A	N/A
L4-W021_SuperSuiteD	NO (-43%)	NO
L4-W022_Lobby	N/A	N/A
L4-W025_SuperSuiteC	NO (-41.3%)	NO
L4-W026_Lobby	N/A	N/A
L4-W029_SuperSuiteB	NO (-35.9%)	NO
L4-W030_Lobby	N/A	N/A
L4-W033_SuperSuiteA	NO (-31.1%)	NO
L4-W037_FandB	NO (-63.6%)	NO
L4-W039_FandB	N/A	N/A
L4-W040_Lobby	N/A	N/A
L4-W042_Restaurant	N/A	N/A
L4-W042_Restaurant	N/A	N/A
L4-W044_St	N/A	N/A
L4-W045_Restaurant	NO (-52%)	NO
L4-W046_Dinning	NO (-99.3%)	NO
L4-W047_FandB	NO (-99.5%)	NO
L4-W049_PlatinumLounge	NO (-98.4%)	NO
L4-W050_Restaurant	NO (-38.6%)	NO
L4-W052_Concourse	NO (-28.3%)	NO
L4-W052_Concourse	NO (-10%)	NO
L4-W052_Concourse	NO (-95.9%)	NO
L4-W054_Dinning	NO (-99.3%)	NO
L4-W055_Lobby	N/A	N/A
L4-W056_Dinning	N/A	N/A
L4-W057_Dinning	NO (-32.6%)	NO
L4-W060_Kitchen	N/A	N/A
L4-W066_Lobby	N/A	N/A
L4-W067_SuperSuiteA	NO (-28.5%)	NO
L4-W068_Lobby	N/A	N/A
L4-W071_SuperSuiteB	NO (-29.1%)	NO
L4-W072_Lobby	N/A	N/A
L4-W075_SuperSuiteC	NO (-29.7%)	NO
L4-W076_Lobby	N/A	N/A
L4-W079_SuperSuiteD	NO (-31.3%)	NO
L4-W080_Lobby	N/A	N/A
L4-W083_SuperSuiteE	NO (-32.7%)	NO
L4-W084_Lobby	N/A	N/A
L4-W087_SuperSuiteF	NO (-34.1%)	NO
L4-W088_Lobby	N/A	N/A
L4-W091_SuperSuiteG	NO (-36.2%)	NO
L4-W092_StudioSuite	NO (-38%)	NO
L4-W093_Lobby	N/A	N/A
L4-W094_TVStudio	NO (-43.4%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
L4-W097_Lobby	N/A	N/A
L4-W098_St	NO (-99.9%)	NO
L4-W099_Office	NO (-45.8%)	NO
L4-W100_Office	NO (-47.2%)	NO
L4-W101_ControlRoom	NO (-99.7%)	NO
L4-W101_ControlRoom	NO (-52.1%)	NO
L4-W102_BoxSupport	N/A	N/A
L4-W103_WC	N/A	N/A
L4-W104_Lobby	N/A	N/A
L4-W104_Lobby	N/A	N/A
L4-W105_MeetingRoom	N/A	N/A
L4-W106_Corridor	NO (-24%)	NO
L4-W106_Corridor	NO (-25.1%)	NO
L4-W110_IT	N/A	N/A
L5-E015_IT	N/A	N/A
L5-E015_IT	NO (-57.6%)	NO
L5-E016_FirstAid	N/A	N/A
L5-N005_IT	NO (-57.8%)	NO
L5-N016_IT	NO (-25.2%)	NO
L5-N028_IT	NO (-57.8%)	NO
L5-N028_IT	NO (-47.1%)	NO
L5-S004_IT	N/A	N/A
L5-S005_IT	N/A	N/A
L5-W037_IT	NO (-53.8%)	NO
L5-W037_IT	NO (-21.8%)	NO
L6-W-012_Office	N/A	N/A
L6-W009_Office	N/A	N/A
L6-W010_Office	N/A	N/A
L6-W011_Office	N/A	N/A
L6-W013_IT	N/A	N/A
L6-W015_Office	YES (+16.6%)	NO
L6-W021_LiftLobby	YES (+46.9%)	NO
L6-W022_ChairmansSuite	YES (+48.8%)	NO
L6-W023_MeetingRoom	N/A	N/A
L6-W024_WC	N/A	N/A
L6-W032_St	N/A	N/A
L6-W033_St	N/A	N/A
L6-W034_Office	YES (+47.2%)	NO
L7-W004_OpenPlanOffice	NO (-43.5%)	NO
L7-W004_OpenPlanOffice	YES (+40.8%)	NO
L7-W006_Office	YES (+42.6%)	NO
L7-W007_Office	YES (+41.5%)	NO
L8-E006_Stairs	N/A	N/A
L8-E007_LiftLobby	N/A	N/A
L8-W006_Stairs	NO (-62.6%)	NO
L8-W007_LiftLobby	YES (+33.1%)	NO
L9-E004_Corridor	NO (-76.6%)	NO
L9-E006_IT	N/A	N/A
L9-E012_SkyLounge	YES (+26%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
L9-E012_SkyLounge	NO (-70.5%)	NO
L9-E012_SkyLounge	NO (-19.7%)	NO
L9-E012_SkyLounge	NO (-21.2%)	NO
L9-E012_SkyLounge	NO (-30.1%)	NO
L9-E014_Kitchen	N/A	N/A
L9-N002_Kitchen	N/A	N/A
L9-N003_SkyBridgeDining	NO (-35.2%)	NO
L9-N004_Kitchen	N/A	N/A
L9-S002_SkyBox	NO (-68.8%)	NO
L9-S003_SkyBox	NO (-71.3%)	NO
L9-S004_SkyBox	NO (-71.2%)	NO
L9-S005_SkyBox	NO (-71.2%)	NO
L9-S006_SkyBox	NO (-71.2%)	NO
L9-S007_SkyBox	NO (-71.2%)	NO
L9-S008_SkyBox	NO (-71.2%)	NO
L9-W001_SkyBox	NO (-71.1%)	NO
L9-W002_SkyBox	NO (-71%)	NO
L9-W003_SkyBox	NO (-71%)	NO
L9-W004_IT	N/A	N/A
L9-W005_SkyBox	NO (-71.4%)	NO
L9-W006_WC	N/A	N/A
L9-W012_Kitchen	N/A	N/A
L9-W013_SkyLounge	NO (-28.7%)	NO
L9-W013_SkyLounge	YES (+26.8%)	NO
L9-W013_SkyLounge	YES (+27.3%)	NO
L9-W020_IT	N/A	N/A
L9-W022_Box	NO (-71.6%)	NO
L9-W024_Corridor	NO (-76.4%)	NO
VOID	YES (+80.4%)	NO
VOID	YES (+18.7%)	NO
VOID	NO (-40.6%)	NO
VOID	NO (-43.2%)	NO
VOID	NO (-19.6%)	NO
VOID	NO (-17.6%)	NO
VOID	YES (+22%)	NO
VOID	YES (+61.2%)	NO
VOID	YES (+1.8%)	NO
VOID	NO (-24.7%)	NO
L6-E001_ITServer	NO (-100%)	NO

Criterion 4: The performance of the building, as built, should be consistent with the BER

Separate submission

Criterion 5: The necessary provisions for enabling energy-efficient operation of the building should be in place

Separate submission

EPBD (Recast): Consideration of alternative energy systems

Were alternative energy systems considered and analysed as part of the design process?	YES
Is evidence of such assessment available as a separate submission?	YES
Are any such measures included in the proposed design?	YES

Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters

	Actual	Notional
Area [m ²]	50089.5	50089.5
External area [m ²]	150867	150867
Weather	LON	LON
Infiltration [m ³ /hm ² @ 50Pa]	3	3
Average conductance [W/K]	57888	46427
Average U-value [W/m ² K]	0.38	0.31
Alpha value* [%]	11.63	10

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

Building Use

% Area Building Type

A1/A2 Retail/Financial and Professional services
A3/A4/A5 Restaurants and Cafes/Drinking Est./Takeaways
B1 Offices and Workshop businesses
B2 to B7 General Industrial and Special Industrial Groups

2 B8 Storage or Distribution

C1 Hotels
C2 Residential Inst.: Hospitals and Care Homes
C2 Residential Inst.: Residential schools
C2 Residential Inst.: Universities and colleges
C2A Secure Residential Inst.
Residential spaces
D1 Non-residential Inst.: Community/Day Centre
D1 Non-residential Inst.: Libraries, Museums, and Galleries
D1 Non-residential Inst.: Education
D1 Non-residential Inst.: Primary Health Care Building
D1 Non-residential Inst.: Crown and County Courts

96 D2 General Assembly and Leisure, Night Clubs and Theatres

Others: Passenger terminals
Others: Emergency services

2 Others: Miscellaneous 24hr activities

Others: Car Parks 24 hrs
Others - Stand alone utility block

Energy Consumption by End Use [kWh/m²]

	Actual	Notional
Heating	19.65	24.64
Cooling	12.31	11.37
Auxiliary	17.02	20.21
Lighting	15.22	18.01
Hot water	48.19	43.46
Equipment*	71.81	71.81
TOTAL **	112.4	117.69

* Energy used by equipment does not count towards the total for calculating emissions.

** Total is net of any electrical energy displaced by CHP generators, if applicable.

Energy Production by Technology [kWh/m²]

	Actual	Notional
Photovoltaic systems	0	0
Wind turbines	0	0
CHP generators	0	0
Solar thermal systems	0	0

Energy & CO₂ Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m ²]	227.97	231.26
Primary energy* [kWh/m ²]	219.55	231.52
Total emissions [kg/m ²]	37.8	39.8

* Primary energy is net of any electrical energy displaced by CHP generators, if applicable.

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 SSEFF	Cool SSEER	Heat gen SEFF	Cool gen SEER
[ST] Fan coil systems, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	56.2	73.9	18.7	5.4	16.8	0.84	3.8	0.95	4.72
	Notional	51.8	70.2	16.7	5.1	22.1	0.86	3.79	----	----
[ST] Fan coil systems, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	59.2	63.4	19.2	4.7	15.5	0.86	3.74	0.95	4.72
	Notional	91.4	47.3	29.4	3.5	19.4	0.86	3.79	----	----
[ST] Split or multi-split system, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	11.4	1117.7	3.4	83.1	0	0.93	3.74	0.95	5
	Notional	0.4	962.2	0.1	70.5	0	0.86	3.79	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	197.6	0	61.5	0	1.6	0.89	0	0.95	0
	Notional	230.7	0	74.3	0	1.6	0.86	0	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	141.5	0	44.1	0	32.5	0.89	0	0.95	0
	Notional	175.6	0	56.6	0	32.5	0.86	0	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	119.5	0	37.2	0	1.6	0.89	0	0.95	0
	Notional	226.6	0	73	0	1.6	0.86	0	----	----
[ST] Constant volume system (fixed fresh air rate), [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	10.4	31.4	3.5	3.1	86.3	0.83	2.8	0.95	4.72
	Notional	3.5	20.3	1.1	2	89.5	0.86	2.84	----	----
[ST] Single-duct VAV, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	212.2	74.9	81.1	6.6	44.8	0.73	3.14	0.95	4.72
	Notional	191.9	36.7	61.8	2.7	20.7	0.86	3.79	----	----
[ST] Split or multi-split system, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	10.1	4231.6	3	302.5	2.7	0.93	3.89	0.95	5.2
	Notional	49.7	4214.9	16	309	4.6	0.86	3.79	----	----
[ST] Central heating using water: floor heating, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	24.5	0	7.6	0	9.9	0.89	0	0.95	0
	Notional	65.9	0	21.2	0	6.4	0.86	0	----	----
[ST] Indoor packaged cabinet (VAV), [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	63.6	68.5	22.7	5.2	12.4	0.78	3.66	0.95	4.72
	Notional	65	48.7	20.9	3.6	18.4	0.86	3.79	----	----

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

Key Features

The BCO can give particular attention to items with specifications that are better than typically expected.

Building fabric

Element	U _{i-Typ}	U _{i-Min}	Surface where the minimum value occurs*
Wall	0.23	-	L2000028:Surf[14]
Floor	0.2	0.06	L03_0490:Surf[7]
Roof	0.15	0.11	LB1_0077:Surf[1]
Windows, roof windows, and rooflights	1.5	1.42	L000009C:Surf[0]
Personnel doors	1.5	-	No Personnel doors in building
Vehicle access & similar large doors	1.5	-	No Vehicle access doors in building
High usage entrance doors	1.5	-	No High usage entrance doors in building
U _{i-Typ} = Typical individual element U-values [W/(m²K)]		U _{i-Min} = Minimum individual element U-values [W/(m²K)]	
* There might be more than one surface where the minimum U-value occurs.			

Air Permeability	Typical value	This building
m³/(h.m²) at 50 Pa	5	3

Project name

THFC Hotel**As built****Date:** Wed Aug 12 12:56:25 2015**Administrative information****Building Details****Address:** Address 1, City, Postcode**Owner Details****Name:** Name**Telephone number:** Phone**Address:** Street Address, City, Postcode**Certification tool****Calculation engine:** Apache**Calculation engine version:** 7.0.2**Interface to calculation engine:** IES Virtual Environment**Interface to calculation engine version:** 7.0.2**BRUKL compliance check version:** v5.2.b.1**Certifier details****Name:** Name**Telephone number:** Phone**Address:** Street Address, City, Postcode**Criterion 1: The calculated CO₂ emission rate for the building should not exceed the target**

1.1	CO ₂ emission rate from the notional building, kgCO ₂ /m ² .annum	74.4
1.2	Target CO ₂ emission rate (TER), kgCO ₂ /m ² .annum	74.4
1.3	Building CO ₂ emission rate (BER), kgCO ₂ /m ² .annum	73.2
1.4	Are emissions from the building less than or equal to the target?	BER ≤ TER
1.5	Are as built details the same as used in the BER calculations?	Separate submission

Criterion 2: The performance of the building fabric and the building services should achieve reasonable overall standards of energy efficiency

Values which do not meet standards in the 2013 Non-Domestic Building Services Compliance Guide are displayed in red.

2.a Building fabric

Element	U _a -Limit	U _a -Calc	U _i -Calc	Surface where the maximum value occurs*
Wall**	0.35	0.16	0.26	00000003:Surf[0]
Floor	0.25	0.16	0.22	00000003:Surf[6]
Roof	0.25	0.12	0.18	21000000:Surf[6]
Windows***, roof windows, and rooflights	2.2	1.03	1.39	RM00005B:Surf[0]
Personnel doors	2.2	-	-	No Personnel doors in building
Vehicle access & similar large doors	1.5	-	-	No Vehicle access doors in building
High usage entrance doors	3.5	-	-	No High usage entrance doors in building
U _a -Limit = Limiting area-weighted average U-values [W/(m ² K)] U _a -Calc = Calculated area-weighted average U-values [W/(m ² K)] U _i -Calc = Calculated maximum individual element U-values [W/(m ² K)] * There might be more than one surface where the maximum U-value occurs. ** 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. N.B.: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.				

Air Permeability	Worst acceptable standard	This building
m ³ /(h.m ²) at 50 Pa	10	3

2.b Building services

The standard values listed below are minimum values for efficiencies and maximum values for SFPs. Refer to the Non-Domestic Building Services Compliance Guide for details.

Whole building lighting automatic monitoring & targeting with alarms for out-of-range values	YES
Whole building electric power factor achieved by power factor correction	>0.95

1- frost protection

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.96	-	-	0	-
Standard value	0.91*	N/A	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 gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

2- FCUs

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.96	2.8	0	1.9	0.75
Standard value	0.91*	2.7	N/A	1.6	0.65
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

3- pool air system

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.96	2.8	0	1.9	0.75
Standard value	0.91*	2.55	N/A	1.6	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

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

Local mechanical ventilation, exhaust, and terminal units

ID	System type in Non-domestic Building Services Compliance Guide
A	Local supply or extract ventilation units serving a single area
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 supply and extract ventilation units serving a single room or zone with heating and heat recovery
E	Local supply and extract ventilation system serving a single area with heating and heat recovery
F	Other local ventilation units
G	Fan-assisted terminal VAV unit
H	Fan coil units
I	Zonal extract system where the fan is remote from the zone with grease filter

Zone name	SFP [W/(l/s)]										HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1			
00-WORK AREA	-	-	-	1.5	-	-	-	1.9	-	-	-	N/A
00-BREAK ROOM	-	-	-	1.5	-	-	-	1.9	-	-	-	N/A
00-GM OFFICE	-	-	-	1.5	-	-	-	1.9	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
00-BOH CORRIDOR-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
00-DATA CENTRE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
00-EMPLOYEES RESTROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
00-PUBLIC RESTROOMS	-	-	-	1.5	-	-	-	1.9	-	-	N/A
00-FUNCTION ROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
00-CHANGING ROOMS	-	-	-	1.5	-	-	-	1.9	-	-	N/A
00-GYM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
00-CORRIDOR-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
00-CORRIDOR-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
00-BOH CORRIDOR-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
01-CIRCULATION LOBBY	-	-	-	1.5	-	-	-	1.9	-	-	N/A
01-RESTURANT KITCHEN	-	-	-	0.6	-	-	-	1.9	-	-	N/A
01-RESTURANT DINING	-	-	-	1.5	-	-	-	1.9	-	-	N/A
00-BOH CORRIDOR-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
15-2 BED APARTMENT-02-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
15-1 BED APARTMENT-04-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
15-1 BED APARTMENT-04-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
15-2 BED APARTMENT-02-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
15-2 BED APARTMENT-02-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
15-2 BED APARTMENT-02-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
15-2 BED APARTMENT-02-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
15-1 BED APARTMENT-03-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
15-1 BED APARTMENT-02-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
15-1 BED APARTMENT-02-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
15-1 BED APARTMENT-02-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
15-2 BED APARTMENT-01-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
15-2 BED APARTMENT-01-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
15-2 BED APARTMENT-01-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
15-2 BED APARTMENT-01-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
15-1 BED APARTMENT-01-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
15-1 BED APARTMENT-01-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
15-1 BED APARTMENT-01-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
15-1 BED APARTMENT-05-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
15-1 BED APARTMENT-05-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
15-1 BED APARTMENT-05-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
15-1 BED APARTMENT-03-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
15-1 BED APARTMENT-03-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
22-LIFT-CIRCULATION LOBBY	-	-	-	1.5	-	-	-	1.9	-	-	N/A
22-ROOFTOP MALE WC	-	-	-	1.5	-	-	-	1.9	-	-	N/A
22-ROOFTOP FEMALE WC	-	-	-	1.5	-	-	-	1.9	-	-	N/A
22-BAR BOH	-	-	-	0.6	-	-	-	1.9	-	-	N/A
02-CIRCULATION LOBBY	-	-	-	1.5	-	-	-	1.9	-	-	N/A
02-CLUB RESTROOMS	-	-	-	1.5	-	-	-	1.9	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
02-CORRIDOR-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
03-DOUBLE ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
03-DOUBLE ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
03-KING ROOM-06	-	-	-	1.5	-	-	-	1.9	-	-	N/A
03-KING ROOM BATHROOM-06	-	-	-	1	-	-	-	1.9	-	-	N/A
03-KING ROOM-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
03-KING ROOM BATHROOM-05	-	-	-	1	-	-	-	1.9	-	-	N/A
03-DOUBLE ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
03-DOUBLE ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
03-KING ROOM BATHROOM-08	-	-	-	1	-	-	-	1.9	-	-	N/A
03-KING ROOM-08	-	-	-	1.5	-	-	-	1.9	-	-	N/A
03-KING ROOM-07	-	-	-	1.5	-	-	-	1.9	-	-	N/A
03-KING ROOM BATHROOM-07	-	-	-	1	-	-	-	1.9	-	-	N/A
03-CIRCULATION LOBBY	-	-	-	1.5	-	-	-	1.9	-	-	N/A
03-KING ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
03-KING ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
03-KING ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
03-KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
03-KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
03-KING ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
03-KING ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
03-KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
03-DOUBLE ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
03-DOUBLE ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
03-DOUBLE ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
03-DOUBLE ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
03-ADA KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
03-ADA KING ROOM BATHROOM-03-	-	-	-	1	-	-	-	1.9	-	-	N/A
03-ADA KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
03-ADA KING ROOM BATHROOM-02-	-	-	-	1	-	-	-	1.9	-	-	N/A
03-CORRIDOR-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
03-ADA KING ROOM BATHROOM-01-	-	-	-	1	-	-	-	1.9	-	-	N/A
03-ADA KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
15-CORRIDOR-06	-	-	-	1.5	-	-	-	1.9	-	-	N/A
15-1 BED APPARTMENT - LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
15-CORRIDOR-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
16-2 BED APARTMENT-02-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
16-1 BED APARTMENT-04-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
16-1 BED APARTMENT-04-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
16-2 BED APARTMENT-02-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
16-2 BED APARTMENT-02-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
16-2 BED APARTMENT-02-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
16-2 BED APARTMENT-02-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
16-1 BED APARTMENT-03-BATHROOM	-	-	1	-	-	-	1.9	-	-	-	N/A
16-1 BED APARTMENT-02-LOUNGE	-	-	1.5	-	-	-	1.9	-	-	-	N/A
16-1 BED APARTMENT-02-BEDROOM	-	-	1.5	-	-	-	1.9	-	-	-	N/A
16-1 BED APARTMENT-02-BATHROOM	-	-	1	-	-	-	1.9	-	-	-	N/A
16-2 BED APARTMENT-01-BATHROOM	-	-	1	-	-	-	1.9	-	-	-	N/A
16-2 BED APARTMENT-01-BEDROOM	-	-	1.5	-	-	-	1.9	-	-	-	N/A
16-2 BED APARTMENT-01-BATHROOM	-	-	1	-	-	-	1.9	-	-	-	N/A
16-2 BED APARTMENT-01-LOUNGE	-	-	1.5	-	-	-	1.9	-	-	-	N/A
16-1 BED APARTMENT-01-LOUNGE	-	-	1.5	-	-	-	1.9	-	-	-	N/A
16-1 BED APARTMENT-01-BATHROOM	-	-	1	-	-	-	1.9	-	-	-	N/A
16-1 BED APARTMENT-01-BEDROOM	-	-	1.5	-	-	-	1.9	-	-	-	N/A
16-1 BED APARTMENT-05-BEDROOM	-	-	1.5	-	-	-	1.9	-	-	-	N/A
16-1 BED APARTMENT-05-BATHROOM	-	-	1	-	-	-	1.9	-	-	-	N/A
16-1 BED APARTMENT-05-LOUNGE	-	-	1.5	-	-	-	1.9	-	-	-	N/A
16-1 BED APARTMENT-03-LOUNGE	-	-	1.5	-	-	-	1.9	-	-	-	N/A
16-1 BED APARTMENT-03-BEDROOM	-	-	1.5	-	-	-	1.9	-	-	-	N/A
16-CORRIDOR-06	-	-	1.5	-	-	-	1.9	-	-	-	N/A
16-1 BED APPARTMENT - LOUNGE	-	-	1.5	-	-	-	1.9	-	-	-	N/A
16-CORRIDOR-01	-	-	1.5	-	-	-	1.9	-	-	-	N/A
17-2 BED APARTMENT-02-BATHROOM	-	-	1	-	-	-	1.9	-	-	-	N/A
17-1 BED APARTMENT-04-BEDROOM	-	-	1.5	-	-	-	1.9	-	-	-	N/A
17-1 BED APARTMENT-04-BATHROOM	-	-	1	-	-	-	1.9	-	-	-	N/A
17-2 BED APARTMENT-02-BEDROOM	-	-	1.5	-	-	-	1.9	-	-	-	N/A
17-2 BED APARTMENT-02-LOUNGE	-	-	1.5	-	-	-	1.9	-	-	-	N/A
17-2 BED APARTMENT-02-BEDROOM	-	-	1.5	-	-	-	1.9	-	-	-	N/A
17-2 BED APARTMENT-02-BATHROOM	-	-	1	-	-	-	1.9	-	-	-	N/A
17-1 BED APARTMENT-03-BATHROOM	-	-	1	-	-	-	1.9	-	-	-	N/A
17-1 BED APARTMENT-02-LOUNGE	-	-	1.5	-	-	-	1.9	-	-	-	N/A
17-1 BED APARTMENT-02-BEDROOM	-	-	1.5	-	-	-	1.9	-	-	-	N/A
17-1 BED APARTMENT-02-BATHROOM	-	-	1	-	-	-	1.9	-	-	-	N/A
17-2 BED APARTMENT-01-BATHROOM	-	-	1	-	-	-	1.9	-	-	-	N/A
17-2 BED APARTMENT-01-BEDROOM	-	-	1.5	-	-	-	1.9	-	-	-	N/A
17-2 BED APARTMENT-01-BATHROOM	-	-	1	-	-	-	1.9	-	-	-	N/A
17-2 BED APARTMENT-01-LOUNGE	-	-	1.5	-	-	-	1.9	-	-	-	N/A
17-1 BED APARTMENT-01-LOUNGE	-	-	1.5	-	-	-	1.9	-	-	-	N/A
17-1 BED APARTMENT-01-BATHROOM	-	-	1	-	-	-	1.9	-	-	-	N/A
17-1 BED APARTMENT-01-BEDROOM	-	-	1.5	-	-	-	1.9	-	-	-	N/A
17-1 BED APARTMENT-05-BEDROOM	-	-	1.5	-	-	-	1.9	-	-	-	N/A
17-1 BED APARTMENT-05-BATHROOM	-	-	1	-	-	-	1.9	-	-	-	N/A
17-1 BED APARTMENT-05-LOUNGE	-	-	1.5	-	-	-	1.9	-	-	-	N/A
17-1 BED APARTMENT-03-LOUNGE	-	-	1.5	-	-	-	1.9	-	-	-	N/A
17-1 BED APARTMENT-03-BEDROOM	-	-	1.5	-	-	-	1.9	-	-	-	N/A
17-CORRIDOR-06	-	-	1.5	-	-	-	1.9	-	-	-	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	1.9	1.6	0.5	1.1	0.5	1	Zone	Standard	
17-1 BED APPARTMENT - LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
17-CORRIDOR-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
18-2 BED APARTMENT-02-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A	
18-1 BED APARTMENT-04-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
18-1 BED APARTMENT-04-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A	
18-2 BED APARTMENT-02-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
18-2 BED APARTMENT-02-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
18-2 BED APARTMENT-02-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
18-2 BED APARTMENT-02-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A	
18-1 BED APARTMENT-03-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A	
18-1 BED APARTMENT-02-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
18-1 BED APARTMENT-02-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
18-1 BED APARTMENT-02-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A	
18-2 BED APARTMENT-01-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A	
18-2 BED APARTMENT-01-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
18-2 BED APARTMENT-01-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A	
18-2 BED APARTMENT-01-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
18-1 BED APARTMENT-01-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
18-1 BED APARTMENT-01-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A	
18-1 BED APARTMENT-01-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
18-1 BED APARTMENT-05-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
18-1 BED APARTMENT-05-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A	
18-1 BED APARTMENT-05-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
18-1 BED APARTMENT-03-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
18-1 BED APARTMENT-03-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
18-CORRIDOR-06	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
18-1 BED APPARTMENT - LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
18-CORRIDOR-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
19-2 BED APARTMENT-02-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A	
19-1 BED APARTMENT-04-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
19-1 BED APARTMENT-04-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A	
19-2 BED APARTMENT-02-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
19-2 BED APARTMENT-02-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
19-2 BED APARTMENT-02-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
19-2 BED APARTMENT-02-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A	
19-1 BED APARTMENT-03-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A	
19-1 BED APARTMENT-02-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
19-1 BED APARTMENT-02-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
19-1 BED APARTMENT-02-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A	
19-2 BED APARTMENT-01-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A	
19-2 BED APARTMENT-01-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A	
19-2 BED APARTMENT-01-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A	
19-2 BED APARTMENT-01-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A	

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
19-1 BED APARTMENT-01-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
19-1 BED APARTMENT-01-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
19-1 BED APARTMENT-01-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
19-1 BED APARTMENT-05-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
19-1 BED APARTMENT-05-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
19-1 BED APARTMENT-05-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
19-1 BED APARTMENT-03-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
19-1 BED APARTMENT-03-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
19-CORRIDOR-06	-	-	-	1.5	-	-	-	1.9	-	-	N/A
19-1 BED APPARTMENT - LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
19-CORRIDOR-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
20-2 BED APARTMENT-02-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
20-1 BED APARTMENT-04-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
20-1 BED APARTMENT-04-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
20-2 BED APARTMENT-02-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
20-2 BED APARTMENT-02-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
20-2 BED APARTMENT-02-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
20-2 BED APARTMENT-02-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
20-1 BED APARTMENT-03-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
20-1 BED APARTMENT-02-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
20-1 BED APARTMENT-02-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
20-1 BED APARTMENT-02-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
20-2 BED APARTMENT-01-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
20-2 BED APARTMENT-01-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
20-2 BED APARTMENT-01-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
20-2 BED APARTMENT-01-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
20-1 BED APARTMENT-01-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
20-1 BED APARTMENT-01-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
20-1 BED APARTMENT-01-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
20-1 BED APARTMENT-05-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
20-1 BED APARTMENT-05-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
20-1 BED APARTMENT-05-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
20-1 BED APARTMENT-03-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
20-1 BED APARTMENT-03-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
20-CORRIDOR-06	-	-	-	1.5	-	-	-	1.9	-	-	N/A
20-1 BED APPARTMENT - LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
20-CORRIDOR-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
21-2 BED APARTMENT-02-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
21-1 BED APARTMENT-04-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
21-1 BED APARTMENT-04-BATHROOM	-	-	-	1	-	-	-	1.9	-	-	N/A
21-2 BED APARTMENT-02-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
21-2 BED APARTMENT-02-LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
21-2 BED APARTMENT-02-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
21-2 BED APARTMENT-02-BATHROOM	-	-	1	-	-	-	-	1.9	-	-	N/A
21-1 BED APARTMENT-03-BATHROOM	-	-	1	-	-	-	-	1.9	-	-	N/A
21-1 BED APARTMENT-02-LOUNGE	-	-	1.5	-	-	-	-	1.9	-	-	N/A
21-1 BED APARTMENT-02-BEDROOM	-	-	1.5	-	-	-	-	1.9	-	-	N/A
21-1 BED APARTMENT-02-BATHROOM	-	-	1	-	-	-	-	1.9	-	-	N/A
21-2 BED APARTMENT-01-BATHROOM	-	-	1	-	-	-	-	1.9	-	-	N/A
21-2 BED APARTMENT-01-BEDROOM	-	-	1.5	-	-	-	-	1.9	-	-	N/A
21-2 BED APARTMENT-01-BATHROOM	-	-	1	-	-	-	-	1.9	-	-	N/A
21-2 BED APARTMENT-01-LOUNGE	-	-	1.5	-	-	-	-	1.9	-	-	N/A
21-1 BED APARTMENT-01-LOUNGE	-	-	1.5	-	-	-	-	1.9	-	-	N/A
21-1 BED APARTMENT-01-BATHROOM	-	-	1	-	-	-	-	1.9	-	-	N/A
21-1 BED APARTMENT-01-BEDROOM	-	-	1.5	-	-	-	-	1.9	-	-	N/A
21-1 BED APARTMENT-05-BEDROOM	-	-	1.5	-	-	-	-	1.9	-	-	N/A
21-1 BED APARTMENT-05-BATHROOM	-	-	1	-	-	-	-	1.9	-	-	N/A
21-1 BED APARTMENT-05-LOUNGE	-	-	1.5	-	-	-	-	1.9	-	-	N/A
21-1 BED APARTMENT-03-LOUNGE	-	-	1.5	-	-	-	-	1.9	-	-	N/A
21-1 BED APARTMENT-03-BEDROOM	-	-	1.5	-	-	-	-	1.9	-	-	N/A
21-CORRIDOR-06	-	-	-	1.5	-	-	-	1.9	-	-	N/A
21-1 BED APPARTMENT - LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
21-CORRIDOR-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
04-DOUBLE ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
04-DOUBLE ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
04-KING ROOM-06	-	-	-	1.5	-	-	-	1.9	-	-	N/A
04-KING ROOM BATHROOM-06	-	-	-	1	-	-	-	1.9	-	-	N/A
04-KING ROOM-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
04-KING ROOM BATHROOM-05	-	-	-	1	-	-	-	1.9	-	-	N/A
04-DOUBLE ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
04-DOUBLE ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
04-KING ROOM BATHROOM-08	-	-	-	1	-	-	-	1.9	-	-	N/A
04-KING ROOM-08	-	-	-	1.5	-	-	-	1.9	-	-	N/A
04-KING ROOM-07	-	-	-	1.5	-	-	-	1.9	-	-	N/A
04-KING ROOM BATHROOM-07	-	-	-	1	-	-	-	1.9	-	-	N/A
04-CIRCULATION LOBBY	-	-	-	1.5	-	-	-	1.9	-	-	N/A
04-KING ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
04-KING ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
04-KING ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
04-KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
04-KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
04-KING ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
04-KING ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
04-KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
04-DOUBLE ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
04-DOUBLE ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
04-DOUBLE ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
04-DOUBLE ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
04-ADA KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
04-ADA KING ROOM BATHROOM-03-	-	-	-	1	-	-	-	1.9	-	-	N/A
04-ADA KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
04-ADA KING ROOM BATHROOM-02-	-	-	-	1	-	-	-	1.9	-	-	N/A
04-CORRIDOR-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
04-ADA KING ROOM BATHROOM-01-	-	-	-	1	-	-	-	1.9	-	-	N/A
04-ADA KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
05-DOUBLE ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
05-DOUBLE ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
05-KING ROOM-06	-	-	-	1.5	-	-	-	1.9	-	-	N/A
05-KING ROOM BATHROOM-06	-	-	-	1	-	-	-	1.9	-	-	N/A
05-KING ROOM-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
05-KING ROOM BATHROOM-05	-	-	-	1	-	-	-	1.9	-	-	N/A
05-DOUBLE ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
05-DOUBLE ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
05-KING ROOM BATHROOM-08	-	-	-	1	-	-	-	1.9	-	-	N/A
05-KING ROOM-08	-	-	-	1.5	-	-	-	1.9	-	-	N/A
05-KING ROOM-07	-	-	-	1.5	-	-	-	1.9	-	-	N/A
05-KING ROOM BATHROOM-07	-	-	-	1	-	-	-	1.9	-	-	N/A
05-CIRCULATION LOBBY	-	-	-	1.5	-	-	-	1.9	-	-	N/A
05-KING ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
05-KING ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
05-KING ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
05-KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
05-KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
05-KING ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
05-KING ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
05-KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
05-DOUBLE ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
05-DOUBLE ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
05-DOUBLE ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
05-DOUBLE ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
05-ADA KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
05-ADA KING ROOM BATHROOM-03-	-	-	-	1	-	-	-	1.9	-	-	N/A
05-ADA KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
05-ADA KING ROOM BATHROOM-02-	-	-	-	1	-	-	-	1.9	-	-	N/A
05-CORRIDOR-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
05-ADA KING ROOM BATHROOM-01-	-	-	-	1	-	-	-	1.9	-	-	N/A
05-ADA KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
06-DOUBLE ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
06-DOUBLE ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
06-KING ROOM-06	-	-	-	1.5	-	-	-	1.9	-	-	N/A
06-KING ROOM BATHROOM-06	-	-	-	1	-	-	-	1.9	-	-	N/A
06-KING ROOM-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
06-KING ROOM BATHROOM-05	-	-	-	1	-	-	-	1.9	-	-	N/A
06-DOUBLE ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
06-DOUBLE ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
06-KING ROOM BATHROOM-08	-	-	-	1	-	-	-	1.9	-	-	N/A
06-KING ROOM-08	-	-	-	1.5	-	-	-	1.9	-	-	N/A
06-KING ROOM-07	-	-	-	1.5	-	-	-	1.9	-	-	N/A
06-KING ROOM BATHROOM-07	-	-	-	1	-	-	-	1.9	-	-	N/A
06-CIRCULATION LOBBY	-	-	-	1.5	-	-	-	1.9	-	-	N/A
06-KING ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
06-KING ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
06-KING ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
06-KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
06-KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
06-KING ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
06-KING ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
06-KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
06-DOUBLE ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
06-DOUBLE ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
06-DOUBLE ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
06-DOUBLE ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
06-ADA KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
06-ADA KING ROOM BATHROOM-03-	-	-	-	1	-	-	-	1.9	-	-	N/A
06-ADA KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
06-ADA KING ROOM BATHROOM-02-	-	-	-	1	-	-	-	1.9	-	-	N/A
06-CORRIDOR-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
06-ADA KING ROOM BATHROOM-01-	-	-	-	1	-	-	-	1.9	-	-	N/A
06-ADA KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
07-DOUBLE ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
07-DOUBLE ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
07-KING ROOM-06	-	-	-	1.5	-	-	-	1.9	-	-	N/A
07-KING ROOM BATHROOM-06	-	-	-	1	-	-	-	1.9	-	-	N/A
07-KING ROOM-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
07-KING ROOM BATHROOM-05	-	-	-	1	-	-	-	1.9	-	-	N/A
07-DOUBLE ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
07-DOUBLE ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
07-KING ROOM BATHROOM-08	-	-	-	1	-	-	-	1.9	-	-	N/A
07-KING ROOM-08	-	-	-	1.5	-	-	-	1.9	-	-	N/A
07-KING ROOM-07	-	-	-	1.5	-	-	-	1.9	-	-	N/A
07-KING ROOM BATHROOM-07	-	-	-	1	-	-	-	1.9	-	-	N/A
07-CIRCULATION LOBBY	-	-	-	1.5	-	-	-	1.9	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
07-KING ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
07-KING ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
07-KING ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
07-KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
07-KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
07-KING ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
07-KING ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
07-KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
07-DOUBLE ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
07-DOUBLE ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
07-DOUBLE ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
07-DOUBLE ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
07-ADA KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
07-ADA KING ROOM BATHROOM-03-	-	-	-	1	-	-	-	1.9	-	-	N/A
07-ADA KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
07-ADA KING ROOM BATHROOM-02-	-	-	-	1	-	-	-	1.9	-	-	N/A
07-CORRIDOR-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
07-ADA KING ROOM BATHROOM-01-	-	-	-	1	-	-	-	1.9	-	-	N/A
07-ADA KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
08-DOUBLE ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
08-DOUBLE ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
08-KING ROOM-06	-	-	-	1.5	-	-	-	1.9	-	-	N/A
08-KING ROOM BATHROOM-06	-	-	-	1	-	-	-	1.9	-	-	N/A
08-KING ROOM-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
08-KING ROOM BATHROOM-05	-	-	-	1	-	-	-	1.9	-	-	N/A
08-DOUBLE ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
08-DOUBLE ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
08-KING ROOM BATHROOM-08	-	-	-	1	-	-	-	1.9	-	-	N/A
08-KING ROOM-08	-	-	-	1.5	-	-	-	1.9	-	-	N/A
08-KING ROOM-07	-	-	-	1.5	-	-	-	1.9	-	-	N/A
08-KING ROOM BATHROOM-07	-	-	-	1	-	-	-	1.9	-	-	N/A
08-CIRCULATION LOBBY	-	-	-	1.5	-	-	-	1.9	-	-	N/A
08-KING ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
08-KING ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
08-KING ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
08-KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
08-KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
08-KING ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
08-KING ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
08-KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
08-DOUBLE ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
08-DOUBLE ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
08-DOUBLE ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
08-DOUBLE ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
08-ADA KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
08-ADA KING ROOM BATHROOM-03-	-	-	-	1	-	-	-	1.9	-	-	N/A
08-ADA KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
08-ADA KING ROOM BATHROOM-02-	-	-	-	1	-	-	-	1.9	-	-	N/A
08-CORRIDOR-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
08-ADA KING ROOM BATHROOM-01-	-	-	-	1	-	-	-	1.9	-	-	N/A
08-ADA KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
09-DOUBLE ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
09-DOUBLE ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
09-KING ROOM-06	-	-	-	1.5	-	-	-	1.9	-	-	N/A
09-KING ROOM BATHROOM-06	-	-	-	1	-	-	-	1.9	-	-	N/A
09-KING ROOM-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
09-KING ROOM BATHROOM-05	-	-	-	1	-	-	-	1.9	-	-	N/A
09-DOUBLE ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
09-DOUBLE ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
09-KING ROOM BATHROOM-08	-	-	-	1	-	-	-	1.9	-	-	N/A
09-KING ROOM-08	-	-	-	1.5	-	-	-	1.9	-	-	N/A
09-KING ROOM-07	-	-	-	1.5	-	-	-	1.9	-	-	N/A
09-KING ROOM BATHROOM-07	-	-	-	1	-	-	-	1.9	-	-	N/A
09-CIRCULATION LOBBY	-	-	-	1.5	-	-	-	1.9	-	-	N/A
09-KING ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
09-KING ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
09-KING ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
09-KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
09-KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
09-KING ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
09-KING ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
09-KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
09-DOUBLE ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
09-DOUBLE ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
09-DOUBLE ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
09-DOUBLE ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
09-ADA KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
09-ADA KING ROOM BATHROOM-03-	-	-	-	1	-	-	-	1.9	-	-	N/A
09-ADA KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
09-ADA KING ROOM BATHROOM-02-	-	-	-	1	-	-	-	1.9	-	-	N/A
09-CORRIDOR-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
09-ADA KING ROOM BATHROOM-01-	-	-	-	1	-	-	-	1.9	-	-	N/A
09-ADA KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
10-DOUBLE ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
10-DOUBLE ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
10-KING ROOM-06	-	-	-	1.5	-	-	-	1.9	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
10-KING ROOM BATHROOM-06	-	-	-	1	-	-	-	1.9	-	-	N/A
10-KING ROOM-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
10-KING ROOM BATHROOM-05	-	-	-	1	-	-	-	1.9	-	-	N/A
10-DOUBLE ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
10-DOUBLE ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
10-KING ROOM BATHROOM-08	-	-	-	1	-	-	-	1.9	-	-	N/A
10-KING ROOM-08	-	-	-	1.5	-	-	-	1.9	-	-	N/A
10-KING ROOM-07	-	-	-	1.5	-	-	-	1.9	-	-	N/A
10-KING ROOM BATHROOM-07	-	-	-	1	-	-	-	1.9	-	-	N/A
10-CIRCULATION LOBBY	-	-	-	1.5	-	-	-	1.9	-	-	N/A
10-KING ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
10-KING ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
10-KING ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
10-KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
10-KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
10-KING ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
10-KING ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
10-KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
10-DOUBLE ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
10-DOUBLE ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
10-DOUBLE ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
10-DOUBLE ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
10-ADA KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
10-ADA KING ROOM BATHROOM-03-	-	-	-	1	-	-	-	1.9	-	-	N/A
10-ADA KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
10-ADA KING ROOM BATHROOM-02-	-	-	-	1	-	-	-	1.9	-	-	N/A
10-CORRIDOR-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
10-ADA KING ROOM BATHROOM-01-	-	-	-	1	-	-	-	1.9	-	-	N/A
10-ADA KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
11-DOUBLE ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
11-DOUBLE ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
11-KING ROOM-06	-	-	-	1.5	-	-	-	1.9	-	-	N/A
11-KING ROOM BATHROOM-06	-	-	-	1	-	-	-	1.9	-	-	N/A
11-KING ROOM-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
11-KING ROOM BATHROOM-05	-	-	-	1	-	-	-	1.9	-	-	N/A
11-DOUBLE ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
11-DOUBLE ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
11-KING ROOM BATHROOM-08	-	-	-	1	-	-	-	1.9	-	-	N/A
11-KING ROOM-08	-	-	-	1.5	-	-	-	1.9	-	-	N/A
11-KING ROOM-07	-	-	-	1.5	-	-	-	1.9	-	-	N/A
11-KING ROOM BATHROOM-07	-	-	-	1	-	-	-	1.9	-	-	N/A
11-CIRCULATION LOBBY	-	-	-	1.5	-	-	-	1.9	-	-	N/A
11-KING ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
11-KING ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
11-KING ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
11-KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
11-KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
11-KING ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
11-KING ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
11-KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
11-DOUBLE ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
11-DOUBLE ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
11-DOUBLE ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
11-DOUBLE ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
11-ADA KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
11-ADA KING ROOM BATHROOM-03-	-	-	-	1	-	-	-	1.9	-	-	N/A
11-ADA KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
11-ADA KING ROOM BATHROOM-02-	-	-	-	1	-	-	-	1.9	-	-	N/A
11-CORRIDOR-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
11-ADA KING ROOM BATHROOM-01-	-	-	-	1	-	-	-	1.9	-	-	N/A
11-ADA KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
12-DOUBLE ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
12-DOUBLE ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
12-KING ROOM-06	-	-	-	1.5	-	-	-	1.9	-	-	N/A
12-KING ROOM BATHROOM-06	-	-	-	1	-	-	-	1.9	-	-	N/A
12-KING ROOM-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
12-KING ROOM BATHROOM-05	-	-	-	1	-	-	-	1.9	-	-	N/A
12-DOUBLE ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
12-DOUBLE ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
12-KING ROOM BATHROOM-08	-	-	-	1	-	-	-	1.9	-	-	N/A
12-KING ROOM-08	-	-	-	1.5	-	-	-	1.9	-	-	N/A
12-KING ROOM-07	-	-	-	1.5	-	-	-	1.9	-	-	N/A
12-KING ROOM BATHROOM-07	-	-	-	1	-	-	-	1.9	-	-	N/A
12-CIRCULATION LOBBY	-	-	-	1.5	-	-	-	1.9	-	-	N/A
12-KING ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
12-KING ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
12-KING ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
12-KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
12-KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
12-KING ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
12-KING ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
12-KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
12-DOUBLE ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
12-DOUBLE ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
12-DOUBLE ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
12-DOUBLE ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
12-ADA KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
12-ADA KING ROOM BATHROOM-03-	-	-	-	1	-	-	-	1.9	-	-	N/A
12-ADA KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
12-ADA KING ROOM BATHROOM-02-	-	-	-	1	-	-	-	1.9	-	-	N/A
12-CORRIDOR-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
12-ADA KING ROOM BATHROOM-01-	-	-	-	1	-	-	-	1.9	-	-	N/A
12-ADA KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
13-DOUBLE ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
13-DOUBLE ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
13-KING ROOM-06	-	-	-	1.5	-	-	-	1.9	-	-	N/A
13-KING ROOM BATHROOM-06	-	-	-	1	-	-	-	1.9	-	-	N/A
13-KING ROOM-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
13-KING ROOM BATHROOM-05	-	-	-	1	-	-	-	1.9	-	-	N/A
13-DOUBLE ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
13-DOUBLE ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
13-KING ROOM BATHROOM-08	-	-	-	1	-	-	-	1.9	-	-	N/A
13-KING ROOM-08	-	-	-	1.5	-	-	-	1.9	-	-	N/A
13-KING ROOM-07	-	-	-	1.5	-	-	-	1.9	-	-	N/A
13-KING ROOM BATHROOM-07	-	-	-	1	-	-	-	1.9	-	-	N/A
13-CIRCULATION LOBBY	-	-	-	1.5	-	-	-	1.9	-	-	N/A
13-KING ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
13-KING ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
13-KING ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
13-KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
13-KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
13-KING ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
13-KING ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
13-KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
13-DOUBLE ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
13-DOUBLE ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
13-DOUBLE ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
13-DOUBLE ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
13-ADA KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
13-ADA KING ROOM BATHROOM-03-	-	-	-	1	-	-	-	1.9	-	-	N/A
13-ADA KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
13-ADA KING ROOM BATHROOM-02-	-	-	-	1	-	-	-	1.9	-	-	N/A
13-CORRIDOR-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
13-ADA KING ROOM BATHROOM-01-	-	-	-	1	-	-	-	1.9	-	-	N/A
13-ADA KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
14-DOUBLE ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
14-DOUBLE ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
14-KING ROOM-06	-	-	-	1.5	-	-	-	1.9	-	-	N/A
14-KING ROOM BATHROOM-06	-	-	-	1	-	-	-	1.9	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
14-KING ROOM-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
14-KING ROOM BATHROOM-05	-	-	-	1	-	-	-	1.9	-	-	N/A
14-DOUBLE ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
14-DOUBLE ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
14-KING ROOM BATHROOM-08	-	-	-	1	-	-	-	1.9	-	-	N/A
14-KING ROOM-08	-	-	-	1.5	-	-	-	1.9	-	-	N/A
14-KING ROOM-07	-	-	-	1.5	-	-	-	1.9	-	-	N/A
14-KING ROOM BATHROOM-07	-	-	-	1	-	-	-	1.9	-	-	N/A
14-CIRCULATION LOBBY	-	-	-	1.5	-	-	-	1.9	-	-	N/A
14-KING ROOM BATHROOM-04	-	-	-	1	-	-	-	1.9	-	-	N/A
14-KING ROOM-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
14-KING ROOM BATHROOM-03	-	-	-	1	-	-	-	1.9	-	-	N/A
14-KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
14-KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
14-KING ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
14-KING ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
14-KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
14-DOUBLE ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
14-DOUBLE ROOM BATHROOM-02	-	-	-	1	-	-	-	1.9	-	-	N/A
14-DOUBLE ROOM BATHROOM-01	-	-	-	1	-	-	-	1.9	-	-	N/A
14-DOUBLE ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
14-ADA KING ROOM-03	-	-	-	1.5	-	-	-	1.9	-	-	N/A
14-ADA KING ROOM BATHROOM-03-	-	-	-	1	-	-	-	1.9	-	-	N/A
14-ADA KING ROOM-02	-	-	-	1.5	-	-	-	1.9	-	-	N/A
14-ADA KING ROOM BATHROOM-02-	-	-	-	1	-	-	-	1.9	-	-	N/A
14-CORRIDOR-05	-	-	-	1.5	-	-	-	1.9	-	-	N/A
14-ADA KING ROOM BATHROOM-01-	-	-	-	1	-	-	-	1.9	-	-	N/A
14-ADA KING ROOM-01	-	-	-	1.5	-	-	-	1.9	-	-	N/A
15-2 BED APARTMENT-01-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
17-2 BED APARTMENT-01-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
16-2 BED APARTMENT-01-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
18-2 BED APARTMENT-01-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
19-2 BED APARTMENT-01-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
20-2 BED APARTMENT-01-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
21-2 BED APARTMENT-01-BEDROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
01-RESTURANT RESTROOMS	-	-	-	1.5	-	-	-	1.9	-	-	N/A
0-LOBBY	-	-	-	1.5	-	-	-	1.9	-	-	N/A
01-RESTURANT	-	-	-	1.5	-	-	-	1.9	-	-	N/A
B1 - CIRCULATION	-	-	-	1.5	-	-	-	1.9	-	-	N/A
02-CORRIDOR-04	-	-	-	1.5	-	-	-	1.9	-	-	N/A
01-RESTURANT LOUNGE	-	-	-	1.5	-	-	-	1.9	-	-	N/A
02-CLUB ROOM	-	-	-	1.5	-	-	-	1.9	-	-	N/A
02-CLUB ROOM	-	-	-	1.5	-	-	-	1.9	-	-	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	1.9	1.6	0.5	1.1	0.5	1	Zone	Standard
02-CLUB ROOM DL	-	-	-	1.5	-	-	-	1.9	-	-	N/A
22-ROOFTOP RESTURANT	-	-	-	1.5	-	-	-	1.9	-	-	N/A
22-ROOFTOP RESTURANT DL	-	-	-	1.5	-	-	-	1.9	-	-	N/A
22-ROOFTOP BAR/LOBBY DL	-	-	-	1.5	-	-	-	1.9	-	-	N/A
22-ROOFTOP BAR/LOBBY	-	-	-	1.5	-	-	-	1.9	-	-	N/A
00-LOBBY	-	-	-	1.5	-	-	-	1.9	-	-	N/A
00-LOBBY DL	-	-	-	1.5	-	-	-	1.9	-	-	N/A

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
Standard value		60	60	22	
B1-PLANT ROOM-01		75	-	-	305
B1-POOL SERVICING ROOM		75	-	-	407
00-ENGINEERS ROOM		75	-	-	119
00-JAN		75	-	-	34
00-LINEN		-	75	-	214
00-LAUNDRY		-	75	-	338
00-STORAGE ROOM-01		75	-	-	24
00-RMU & SUB STATION		75	-	-	120
00-LV SUB MAINS		75	-	-	121
00-WORK AREA		75	-	-	339
00-BREAK ROOM		75	-	-	577
00-GM OFFICE		75	-	-	218
00-HOTEL GAS METER		75	-	-	81
00-HOTEL DISTRICT HEATING		75	-	-	82
00-BOH CORRIDOR-03		-	75	-	122
00-DATA CENTRE		75	-	-	218
00-LUGGAGE		75	-	-	35
00-EMPLOYEES RESTROOM		-	75	-	173
00-PUBLIC RESTROOMS		-	75	-	203
00-FUNCTION ROOM		75	-	-	566
00-GUEST LAUNDRY		-	75	-	173
00-CHANGING ROOMS		-	75	-	76
00-GYM		-	75	-	296
00-POOL		-	75	-	1202
00-CORRIDOR-01		-	75	-	226
00-CORRIDOR-02		-	75	-	91
00-BOH CORRIDOR-02		-	75	-	51
01-FIRE STAIR-01		-	75	-	75
01-CIRCULATION LOBBY		-	75	-	88
01-RESTURANT KITCHEN		-	75	-	1053
01-RESTURANT DINING		-	75	65	535
01-FIRE STAIR-02		-	75	-	67

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
00-FIRE STAIR-01		-	75	-	62
00-BOH CORRIDOR-01		-	75	-	271
15-2 BED APARTMENT-02-BATHROOM		-	75	-	53
15-1 BED APARTMENT-04-BEDROOM		-	75	-	38
15-1 BED APARTMENT-04-BATHROOM		-	75	-	34
15-2 BED APARTMENT-02-BEDROOM		-	75	-	54
15-2 BED APARTMENT-02-LOUNGE		-	75	-	101
15-2 BED APARTMENT-02-BEDROOM		-	75	-	32
15-2 BED APARTMENT-02-BATHROOM		-	75	-	36
15-1 BED APARTMENT-03-BATHROOM		-	75	-	34
15-1 BED APARTMENT-02-LOUNGE		-	75	-	65
15-1 BED APARTMENT-02-BEDROOM		-	75	-	38
15-1 BED APARTMENT-02-BATHROOM		-	75	-	34
15-STORAGE		75	-	-	16
15-FIRE STAIR-02		-	75	-	53
15-2 BED APARTMENT-01-BATHROOM		-	75	-	30
15-2 BED APARTMENT-01-BEDROOM		-	75	-	35
15-2 BED APARTMENT-01-BATHROOM		-	75	-	33
15-2 BED APARTMENT-01-LOUNGE		-	75	-	89
15-1 BED APARTMENT-01-LOUNGE		-	75	-	68
15-1 BED APARTMENT-01-BATHROOM		-	75	-	34
15-1 BED APARTMENT-01-BEDROOM		-	75	-	38
15-1 BED APARTMENT-05-BEDROOM		-	75	-	41
15-1 BED APARTMENT-05-BATHROOM		-	75	-	33
15-1 BED APARTMENT-05-LOUNGE		-	75	-	73
15-1 BED APARTMENT-03-LOUNGE		-	75	-	65
15-1 BED APARTMENT-03-BEDROOM		-	75	-	37
22-LIFT-CIRCULATION LOBBY		-	75	-	40
22-FIRE STAIR-01		-	75	-	62
22-BOH CIRCULATION		75	-	-	27
22-ROOFTOP MALE WC		-	75	-	148
22-ROOFTOP FEMALE WC		-	75	-	150
22-BAR BOH		-	75	-	229
22-FIRE STAIR-02		-	75	-	54
23-FIRE STAIR-01		-	75	-	62
23-FIRE STAIR-02		-	75	-	54
02-FIRE STAIR-01		-	75	-	61
02-CIRCULATION LOBBY		-	75	-	40
02-PLANT ROOM-03		75	-	-	919
02-PLANT ROOM-02		75	-	-	415
02-FIRE STAIR-02		-	75	-	74
02-CLUB RESTROOMS		-	75	-	146
02-CORRIDOR-03		-	75	-	33

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
02-PLANT ROOM-01		75	-	-	102
00-DELIVERIES AREA		75	-	-	68
03-DOUBLE ROOM-03		-	75	-	55
03-DOUBLE ROOM BATHROOM-03		-	75	-	29
03-KING ROOM-06		-	75	-	50
03-KING ROOM BATHROOM-06		-	75	-	29
03-KING ROOM-05		-	75	-	51
03-KING ROOM BATHROOM-05		-	75	-	29
03-DOUBLE ROOM-04		-	75	-	63
03-DOUBLE ROOM BATHROOM-04		-	75	-	28
03-KING ROOM BATHROOM-08		-	75	-	29
03-KING ROOM-08		-	75	-	51
03-KING ROOM-07		-	75	-	54
03-KING ROOM BATHROOM-07		-	75	-	28
03-FIRE STAIR-01		-	75	-	44
03-CIRCULATION LOBBY		-	75	-	25
03-KING ROOM BATHROOM-04		-	75	-	29
03-KING ROOM-04		-	75	-	51
03-KING ROOM BATHROOM-03		-	75	-	29
03-KING ROOM-03		-	75	-	58
03-KING ROOM-02		-	75	-	54
03-KING ROOM BATHROOM-02		-	75	-	29
03-KING ROOM BATHROOM-01		-	75	-	29
03-KING ROOM-01		-	75	-	52
03-DOUBLE ROOM-01		-	75	-	56
03-DOUBLE ROOM BATHROOM-02		-	75	-	29
03-DOUBLE ROOM BATHROOM-01		-	75	-	30
03-DOUBLE ROOM-02		-	75	-	55
03-FIRE STAIR-02		-	75	-	52
03-ADA KING ROOM-03		-	75	-	65
03-ADA KING ROOM BATHROOM-03		-	75	-	36
03-ADA KING ROOM-02		-	75	-	63
03-ADA KING ROOM BATHROOM-02		-	75	-	33
03-CORRIDOR-05		-	75	-	261
03-ADA KING ROOM BATHROOM-01		-	75	-	31
03-ADA KING ROOM-01		-	75	-	97
15-CORRIDOR-06		-	75	-	233
15-1 BED APPARTMENT - LOUNGE		-	75	-	69
15-FIRESTAIR-01		-	75	-	45
15-CORRIDOR-01		-	75	-	25
16-2 BED APARTMENT-02-BATHROOM		-	75	-	53
16-1 BED APARTMENT-04-BEDROOM		-	75	-	38
16-1 BED APARTMENT-04-BATHROOM		-	75	-	34

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	Luminaire	Lamp	Display lamp	General lighting [W]
Standard value	60	60	22	
16-2 BED APARTMENT-02-BEDROOM	-	75	-	54
16-2 BED APARTMENT-02-LOUNGE	-	75	-	101
16-2 BED APARTMENT-02-BEDROOM	-	75	-	32
16-2 BED APARTMENT-02-BATHROOM	-	75	-	36
16-1 BED APARTMENT-03-BATHROOM	-	75	-	34
16-1 BED APARTMENT-02-LOUNGE	-	75	-	65
16-1 BED APARTMENT-02-BEDROOM	-	75	-	38
16-1 BED APARTMENT-02-BATHROOM	-	75	-	34
16-STORAGE	75	-	-	16
16-FIRE STAIR-02	-	75	-	53
16-2 BED APARTMENT-01-BATHROOM	-	75	-	30
16-2 BED APARTMENT-01-BEDROOM	-	75	-	35
16-2 BED APARTMENT-01-BATHROOM	-	75	-	33
16-2 BED APARTMENT-01-LOUNGE	-	75	-	89
16-1 BED APARTMENT-01-LOUNGE	-	75	-	68
16-1 BED APARTMENT-01-BATHROOM	-	75	-	34
16-1 BED APARTMENT-01-BEDROOM	-	75	-	38
16-1 BED APARTMENT-05-BEDROOM	-	75	-	41
16-1 BED APARTMENT-05-BATHROOM	-	75	-	33
16-1 BED APARTMENT-05-LOUNGE	-	75	-	73
16-1 BED APARTMENT-03-LOUNGE	-	75	-	65
16-1 BED APARTMENT-03-BEDROOM	-	75	-	37
16-CORRIDOR-06	-	75	-	233
16-1 BED APPARTMENT - LOUNGE	-	75	-	69
16-FIRESTAIR-01	-	75	-	45
16-CORRIDOR-01	-	75	-	25
17-2 BED APARTMENT-02-BATHROOM	-	75	-	53
17-1 BED APARTMENT-04-BEDROOM	-	75	-	38
17-1 BED APARTMENT-04-BATHROOM	-	75	-	34
17-2 BED APARTMENT-02-BEDROOM	-	75	-	54
17-2 BED APARTMENT-02-LOUNGE	-	75	-	101
17-2 BED APARTMENT-02-BEDROOM	-	75	-	32
17-2 BED APARTMENT-02-BATHROOM	-	75	-	36
17-1 BED APARTMENT-03-BATHROOM	-	75	-	34
17-1 BED APARTMENT-02-LOUNGE	-	75	-	65
17-1 BED APARTMENT-02-BEDROOM	-	75	-	38
17-1 BED APARTMENT-02-BATHROOM	-	75	-	34
17-STORAGE	75	-	-	16
17-FIRE STAIR-02	-	75	-	53
17-2 BED APARTMENT-01-BATHROOM	-	75	-	30
17-2 BED APARTMENT-01-BEDROOM	-	75	-	35
17-2 BED APARTMENT-01-BATHROOM	-	75	-	33
17-2 BED APARTMENT-01-LOUNGE	-	75	-	89

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	Luminaire	Lamp	Display lamp	General lighting [W]
Standard value	60	60	22	
17-1 BED APARTMENT-01-LOUNGE	-	75	-	68
17-1 BED APARTMENT-01-BATHROOM	-	75	-	34
17-1 BED APARTMENT-01-BEDROOM	-	75	-	38
17-1 BED APARTMENT-05-BEDROOM	-	75	-	41
17-1 BED APARTMENT-05-BATHROOM	-	75	-	33
17-1 BED APARTMENT-05-LOUNGE	-	75	-	73
17-1 BED APARTMENT-03-LOUNGE	-	75	-	65
17-1 BED APARTMENT-03-BEDROOM	-	75	-	37
17-CORRIDOR-06	-	75	-	233
17-1 BED APPARTMENT - LOUNGE	-	75	-	69
17-FIRESTAIR-01	-	75	-	45
17-CORRIDOR-01	-	75	-	25
18-2 BED APARTMENT-02-BATHROOM	-	75	-	53
18-1 BED APARTMENT-04-BEDROOM	-	75	-	38
18-1 BED APARTMENT-04-BATHROOM	-	75	-	34
18-2 BED APARTMENT-02-BEDROOM	-	75	-	54
18-2 BED APARTMENT-02-LOUNGE	-	75	-	101
18-2 BED APARTMENT-02-BEDROOM	-	75	-	32
18-2 BED APARTMENT-02-BATHROOM	-	75	-	36
18-1 BED APARTMENT-03-BATHROOM	-	75	-	34
18-1 BED APARTMENT-02-LOUNGE	-	75	-	65
18-1 BED APARTMENT-02-BEDROOM	-	75	-	38
18-1 BED APARTMENT-02-BATHROOM	-	75	-	34
18-STORAGE	75	-	-	16
18-FIRE STAIR-02	-	75	-	53
18-2 BED APARTMENT-01-BATHROOM	-	75	-	30
18-2 BED APARTMENT-01-BEDROOM	-	75	-	35
18-2 BED APARTMENT-01-BATHROOM	-	75	-	33
18-2 BED APARTMENT-01-LOUNGE	-	75	-	89
18-1 BED APARTMENT-01-LOUNGE	-	75	-	68
18-1 BED APARTMENT-01-BATHROOM	-	75	-	34
18-1 BED APARTMENT-01-BEDROOM	-	75	-	38
18-1 BED APARTMENT-05-BEDROOM	-	75	-	41
18-1 BED APARTMENT-05-BATHROOM	-	75	-	33
18-1 BED APARTMENT-05-LOUNGE	-	75	-	73
18-1 BED APARTMENT-03-LOUNGE	-	75	-	65
18-1 BED APARTMENT-03-BEDROOM	-	75	-	37
18-CORRIDOR-06	-	75	-	233
18-1 BED APPARTMENT - LOUNGE	-	75	-	69
18-FIRESTAIR-01	-	75	-	45
18-CORRIDOR-01	-	75	-	25
19-2 BED APARTMENT-02-BATHROOM	-	75	-	53
19-1 BED APARTMENT-04-BEDROOM	-	75	-	38

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	Luminaire	Lamp	Display lamp	General lighting [W]
Standard value	60	60	22	
19-1 BED APARTMENT-04-BATHROOM	-	75	-	34
19-2 BED APARTMENT-02-BEDROOM	-	75	-	54
19-2 BED APARTMENT-02-LOUNGE	-	75	-	101
19-2 BED APARTMENT-02-BEDROOM	-	75	-	32
19-2 BED APARTMENT-02-BATHROOM	-	75	-	36
19-1 BED APARTMENT-03-BATHROOM	-	75	-	34
19-1 BED APARTMENT-02-LOUNGE	-	75	-	65
19-1 BED APARTMENT-02-BEDROOM	-	75	-	38
19-1 BED APARTMENT-02-BATHROOM	-	75	-	34
19-STORAGE	75	-	-	16
19-FIRE STAIR-02	-	75	-	53
19-2 BED APARTMENT-01-BATHROOM	-	75	-	30
19-2 BED APARTMENT-01-BEDROOM	-	75	-	35
19-2 BED APARTMENT-01-BATHROOM	-	75	-	33
19-2 BED APARTMENT-01-LOUNGE	-	75	-	89
19-1 BED APARTMENT-01-LOUNGE	-	75	-	68
19-1 BED APARTMENT-01-BATHROOM	-	75	-	34
19-1 BED APARTMENT-01-BEDROOM	-	75	-	38
19-1 BED APARTMENT-05-BEDROOM	-	75	-	41
19-1 BED APARTMENT-05-BATHROOM	-	75	-	33
19-1 BED APARTMENT-05-LOUNGE	-	75	-	73
19-1 BED APARTMENT-03-LOUNGE	-	75	-	65
19-1 BED APARTMENT-03-BEDROOM	-	75	-	37
19-CORRIDOR-06	-	75	-	233
19-1 BED APPARTMENT - LOUNGE	-	75	-	69
19-FIRESTAIR-01	-	75	-	45
19-CORRIDOR-01	-	75	-	25
20-2 BED APARTMENT-02-BATHROOM	-	75	-	53
20-1 BED APARTMENT-04-BEDROOM	-	75	-	38
20-1 BED APARTMENT-04-BATHROOM	-	75	-	34
20-2 BED APARTMENT-02-BEDROOM	-	75	-	54
20-2 BED APARTMENT-02-LOUNGE	-	75	-	101
20-2 BED APARTMENT-02-BEDROOM	-	75	-	32
20-2 BED APARTMENT-02-BATHROOM	-	75	-	36
20-1 BED APARTMENT-03-BATHROOM	-	75	-	34
20-1 BED APARTMENT-02-LOUNGE	-	75	-	65
20-1 BED APARTMENT-02-BEDROOM	-	75	-	38
20-1 BED APARTMENT-02-BATHROOM	-	75	-	34
20-STORAGE	75	-	-	16
20-FIRE STAIR-02	-	75	-	53
20-2 BED APARTMENT-01-BATHROOM	-	75	-	30
20-2 BED APARTMENT-01-BEDROOM	-	75	-	35
20-2 BED APARTMENT-01-BATHROOM	-	75	-	33

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	Luminaire	Lamp	Display lamp	General lighting [W]
Standard value	60	60	22	
20-2 BED APARTMENT-01-LOUNGE	-	75	-	89
20-1 BED APARTMENT-01-LOUNGE	-	75	-	68
20-1 BED APARTMENT-01-BATHROOM	-	75	-	34
20-1 BED APARTMENT-01-BEDROOM	-	75	-	38
20-1 BED APARTMENT-05-BEDROOM	-	75	-	41
20-1 BED APARTMENT-05-BATHROOM	-	75	-	33
20-1 BED APARTMENT-05-LOUNGE	-	75	-	73
20-1 BED APARTMENT-03-LOUNGE	-	75	-	65
20-1 BED APARTMENT-03-BEDROOM	-	75	-	37
20-CORRIDOR-06	-	75	-	233
20-1 BED APPARTMENT - LOUNGE	-	75	-	69
20-FIRESTAIR-01	-	75	-	45
20-CORRIDOR-01	-	75	-	25
21-2 BED APARTMENT-02-BATHROOM	-	75	-	53
21-1 BED APARTMENT-04-BEDROOM	-	75	-	38
21-1 BED APARTMENT-04-BATHROOM	-	75	-	34
21-2 BED APARTMENT-02-BEDROOM	-	75	-	54
21-2 BED APARTMENT-02-LOUNGE	-	75	-	101
21-2 BED APARTMENT-02-BEDROOM	-	75	-	32
21-2 BED APARTMENT-02-BATHROOM	-	75	-	36
21-1 BED APARTMENT-03-BATHROOM	-	75	-	34
21-1 BED APARTMENT-02-LOUNGE	-	75	-	65
21-1 BED APARTMENT-02-BEDROOM	-	75	-	38
21-1 BED APARTMENT-02-BATHROOM	-	75	-	34
21-STORAGE	75	-	-	16
21-FIRE STAIR-02	-	75	-	53
21-2 BED APARTMENT-01-BATHROOM	-	75	-	30
21-2 BED APARTMENT-01-BEDROOM	-	75	-	35
21-2 BED APARTMENT-01-BATHROOM	-	75	-	33
21-2 BED APARTMENT-01-LOUNGE	-	75	-	89
21-1 BED APARTMENT-01-LOUNGE	-	75	-	68
21-1 BED APARTMENT-01-BATHROOM	-	75	-	34
21-1 BED APARTMENT-01-BEDROOM	-	75	-	38
21-1 BED APARTMENT-05-BEDROOM	-	75	-	41
21-1 BED APARTMENT-05-BATHROOM	-	75	-	33
21-1 BED APARTMENT-05-LOUNGE	-	75	-	73
21-1 BED APARTMENT-03-LOUNGE	-	75	-	65
21-1 BED APARTMENT-03-BEDROOM	-	75	-	37
21-CORRIDOR-06	-	75	-	233
21-1 BED APPARTMENT - LOUNGE	-	75	-	69
21-FIRESTAIR-01	-	75	-	45
21-CORRIDOR-01	-	75	-	25
04-DOUBLE ROOM-03	-	75	-	55

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	Luminaire	Lamp	Display lamp	General lighting [W]
Standard value	60	60	22	
04-DOUBLE ROOM BATHROOM-03	-	75	-	29
04-KING ROOM-06	-	75	-	50
04-KING ROOM BATHROOM-06	-	75	-	29
04-KING ROOM-05	-	75	-	51
04-KING ROOM BATHROOM-05	-	75	-	29
04-DOUBLE ROOM-04	-	75	-	63
04-DOUBLE ROOM BATHROOM-04	-	75	-	28
04-KING ROOM BATHROOM-08	-	75	-	29
04-KING ROOM-08	-	75	-	51
04-KING ROOM-07	-	75	-	54
04-KING ROOM BATHROOM-07	-	75	-	28
04-FIRE STAIR-01	-	75	-	44
04-CIRCULATION LOBBY	-	75	-	25
04-KING ROOM BATHROOM-04	-	75	-	29
04-KING ROOM-04	-	75	-	51
04-KING ROOM BATHROOM-03	-	75	-	29
04-KING ROOM-03	-	75	-	58
04-KING ROOM-02	-	75	-	54
04-KING ROOM BATHROOM-02	-	75	-	29
04-KING ROOM BATHROOM-01	-	75	-	29
04-KING ROOM-01	-	75	-	52
04-DOUBLE ROOM-01	-	75	-	56
04-DOUBLE ROOM BATHROOM-02	-	75	-	29
04-DOUBLE ROOM BATHROOM-01	-	75	-	30
04-DOUBLE ROOM-02	-	75	-	55
04-FIRE STAIR-02	-	75	-	52
04-ADA KING ROOM-03	-	75	-	65
04-ADA KING ROOM BATHROOM-03	-	75	-	36
04-ADA KING ROOM-02	-	75	-	63
04-ADA KING ROOM BATHROOM-02	-	75	-	33
04-CORRIDOR-05	-	75	-	261
04-ADA KING ROOM BATHROOM-01	-	75	-	31
04-ADA KING ROOM-01	-	75	-	97
05-DOUBLE ROOM-03	-	75	-	55
05-DOUBLE ROOM BATHROOM-03	-	75	-	29
05-KING ROOM-06	-	75	-	50
05-KING ROOM BATHROOM-06	-	75	-	29
05-KING ROOM-05	-	75	-	51
05-KING ROOM BATHROOM-05	-	75	-	29
05-DOUBLE ROOM-04	-	75	-	63
05-DOUBLE ROOM BATHROOM-04	-	75	-	28
05-KING ROOM BATHROOM-08	-	75	-	29
05-KING ROOM-08	-	75	-	51

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
05-KING ROOM-07		-	75	-	54
05-KING ROOM BATHROOM-07		-	75	-	28
05-FIRE STAIR-01		-	75	-	44
05-CIRCULATION LOBBY		-	75	-	25
05-KING ROOM BATHROOM-04		-	75	-	29
05-KING ROOM-04		-	75	-	51
05-KING ROOM BATHROOM-03		-	75	-	29
05-KING ROOM-03		-	75	-	58
05-KING ROOM-02		-	75	-	54
05-KING ROOM BATHROOM-02		-	75	-	29
05-KING ROOM BATHROOM-01		-	75	-	29
05-KING ROOM-01		-	75	-	52
05-DOUBLE ROOM-01		-	75	-	56
05-DOUBLE ROOM BATHROOM-02		-	75	-	29
05-DOUBLE ROOM BATHROOM-01		-	75	-	30
05-DOUBLE ROOM-02		-	75	-	55
05-FIRE STAIR-02		-	75	-	52
05-ADA KING ROOM-03		-	75	-	65
05-ADA KING ROOM BATHROOM-03		-	75	-	36
05-ADA KING ROOM-02		-	75	-	63
05-ADA KING ROOM BATHROOM-02		-	75	-	33
05-CORRIDOR-05		-	75	-	261
05-ADA KING ROOM BATHROOM-01		-	75	-	31
05-ADA KING ROOM-01		-	75	-	97
06-DOUBLE ROOM-03		-	75	-	55
06-DOUBLE ROOM BATHROOM-03		-	75	-	29
06-KING ROOM-06		-	75	-	50
06-KING ROOM BATHROOM-06		-	75	-	29
06-KING ROOM-05		-	75	-	51
06-KING ROOM BATHROOM-05		-	75	-	29
06-DOUBLE ROOM-04		-	75	-	63
06-DOUBLE ROOM BATHROOM-04		-	75	-	28
06-KING ROOM BATHROOM-08		-	75	-	29
06-KING ROOM-08		-	75	-	51
06-KING ROOM-07		-	75	-	54
06-KING ROOM BATHROOM-07		-	75	-	28
06-FIRE STAIR-01		-	75	-	44
06-CIRCULATION LOBBY		-	75	-	25
06-KING ROOM BATHROOM-04		-	75	-	29
06-KING ROOM-04		-	75	-	51
06-KING ROOM BATHROOM-03		-	75	-	29
06-KING ROOM-03		-	75	-	58
06-KING ROOM-02		-	75	-	54

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
06-KING ROOM BATHROOM-02		-	75	-	29
06-KING ROOM BATHROOM-01		-	75	-	29
06-KING ROOM-01		-	75	-	52
06-DOUBLE ROOM-01		-	75	-	56
06-DOUBLE ROOM BATHROOM-02		-	75	-	29
06-DOUBLE ROOM BATHROOM-01		-	75	-	30
06-DOUBLE ROOM-02		-	75	-	55
06-FIRE STAIR-02		-	75	-	52
06-ADA KING ROOM-03		-	75	-	65
06-ADA KING ROOM BATHROOM-03		-	75	-	36
06-ADA KING ROOM-02		-	75	-	63
06-ADA KING ROOM BATHROOM-02		-	75	-	33
06-CORRIDOR-05		-	75	-	261
06-ADA KING ROOM BATHROOM-01		-	75	-	31
06-ADA KING ROOM-01		-	75	-	97
07-DOUBLE ROOM-03		-	75	-	55
07-DOUBLE ROOM BATHROOM-03		-	75	-	29
07-KING ROOM-06		-	75	-	50
07-KING ROOM BATHROOM-06		-	75	-	29
07-KING ROOM-05		-	75	-	51
07-KING ROOM BATHROOM-05		-	75	-	29
07-DOUBLE ROOM-04		-	75	-	63
07-DOUBLE ROOM BATHROOM-04		-	75	-	28
07-KING ROOM BATHROOM-08		-	75	-	29
07-KING ROOM-08		-	75	-	51
07-KING ROOM-07		-	75	-	54
07-KING ROOM BATHROOM-07		-	75	-	28
07-FIRE STAIR-01		-	75	-	44
07-CIRCULATION LOBBY		-	75	-	25
07-KING ROOM BATHROOM-04		-	75	-	29
07-KING ROOM-04		-	75	-	51
07-KING ROOM BATHROOM-03		-	75	-	29
07-KING ROOM-03		-	75	-	58
07-KING ROOM-02		-	75	-	54
07-KING ROOM BATHROOM-02		-	75	-	29
07-KING ROOM BATHROOM-01		-	75	-	29
07-KING ROOM-01		-	75	-	52
07-DOUBLE ROOM-01		-	75	-	56
07-DOUBLE ROOM BATHROOM-02		-	75	-	29
07-DOUBLE ROOM BATHROOM-01		-	75	-	30
07-DOUBLE ROOM-02		-	75	-	55
07-FIRE STAIR-02		-	75	-	52
07-ADA KING ROOM-03		-	75	-	65

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	Luminaire	Lamp	Display lamp	General lighting [W]
Standard value	60	60	22	
07-ADA KING ROOM BATHROOM-03	-	75	-	36
07-ADA KING ROOM-02	-	75	-	63
07-ADA KING ROOM BATHROOM-02	-	75	-	33
07-CORRIDOR-05	-	75	-	261
07-ADA KING ROOM BATHROOM-01	-	75	-	31
07-ADA KING ROOM-01	-	75	-	97
08-DOUBLE ROOM-03	-	75	-	55
08-DOUBLE ROOM BATHROOM-03	-	75	-	29
08-KING ROOM-06	-	75	-	50
08-KING ROOM BATHROOM-06	-	75	-	29
08-KING ROOM-05	-	75	-	51
08-KING ROOM BATHROOM-05	-	75	-	29
08-DOUBLE ROOM-04	-	75	-	63
08-DOUBLE ROOM BATHROOM-04	-	75	-	28
08-KING ROOM BATHROOM-08	-	75	-	29
08-KING ROOM-08	-	75	-	51
08-KING ROOM-07	-	75	-	54
08-KING ROOM BATHROOM-07	-	75	-	28
08-FIRE STAIR-01	-	75	-	44
08-CIRCULATION LOBBY	-	75	-	25
08-KING ROOM BATHROOM-04	-	75	-	29
08-KING ROOM-04	-	75	-	51
08-KING ROOM BATHROOM-03	-	75	-	29
08-KING ROOM-03	-	75	-	58
08-KING ROOM-02	-	75	-	54
08-KING ROOM BATHROOM-02	-	75	-	29
08-KING ROOM BATHROOM-01	-	75	-	29
08-KING ROOM-01	-	75	-	52
08-DOUBLE ROOM-01	-	75	-	56
08-DOUBLE ROOM BATHROOM-02	-	75	-	29
08-DOUBLE ROOM BATHROOM-01	-	75	-	30
08-DOUBLE ROOM-02	-	75	-	55
08-FIRE STAIR-02	-	75	-	52
08-ADA KING ROOM-03	-	75	-	65
08-ADA KING ROOM BATHROOM-03	-	75	-	36
08-ADA KING ROOM-02	-	75	-	63
08-ADA KING ROOM BATHROOM-02	-	75	-	33
08-CORRIDOR-05	-	75	-	261
08-ADA KING ROOM BATHROOM-01	-	75	-	31
08-ADA KING ROOM-01	-	75	-	97
09-DOUBLE ROOM-03	-	75	-	55
09-DOUBLE ROOM BATHROOM-03	-	75	-	29
09-KING ROOM-06	-	75	-	50

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
09-KING ROOM BATHROOM-06		-	75	-	29
09-KING ROOM-05		-	75	-	51
09-KING ROOM BATHROOM-05		-	75	-	29
09-DOUBLE ROOM-04		-	75	-	63
09-DOUBLE ROOM BATHROOM-04		-	75	-	28
09-KING ROOM BATHROOM-08		-	75	-	29
09-KING ROOM-08		-	75	-	51
09-KING ROOM-07		-	75	-	54
09-KING ROOM BATHROOM-07		-	75	-	28
09-FIRE STAIR-01		-	75	-	44
09-CIRCULATION LOBBY		-	75	-	25
09-KING ROOM BATHROOM-04		-	75	-	29
09-KING ROOM-04		-	75	-	51
09-KING ROOM BATHROOM-03		-	75	-	29
09-KING ROOM-03		-	75	-	58
09-KING ROOM-02		-	75	-	54
09-KING ROOM BATHROOM-02		-	75	-	29
09-KING ROOM BATHROOM-01		-	75	-	29
09-KING ROOM-01		-	75	-	52
09-DOUBLE ROOM-01		-	75	-	56
09-DOUBLE ROOM BATHROOM-02		-	75	-	29
09-DOUBLE ROOM BATHROOM-01		-	75	-	30
09-DOUBLE ROOM-02		-	75	-	55
09-FIRE STAIR-02		-	75	-	52
09-ADA KING ROOM-03		-	75	-	65
09-ADA KING ROOM BATHROOM-03		-	75	-	36
09-ADA KING ROOM-02		-	75	-	63
09-ADA KING ROOM BATHROOM-02		-	75	-	33
09-CORRIDOR-05		-	75	-	261
09-ADA KING ROOM BATHROOM-01		-	75	-	31
09-ADA KING ROOM-01		-	75	-	97
10-DOUBLE ROOM-03		-	75	-	55
10-DOUBLE ROOM BATHROOM-03		-	75	-	29
10-KING ROOM-06		-	75	-	50
10-KING ROOM BATHROOM-06		-	75	-	29
10-KING ROOM-05		-	75	-	51
10-KING ROOM BATHROOM-05		-	75	-	29
10-DOUBLE ROOM-04		-	75	-	63
10-DOUBLE ROOM BATHROOM-04		-	75	-	28
10-KING ROOM BATHROOM-08		-	75	-	29
10-KING ROOM-08		-	75	-	51
10-KING ROOM-07		-	75	-	54
10-KING ROOM BATHROOM-07		-	75	-	28

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
10-FIRE STAIR-01		-	75	-	44
10-CIRCULATION LOBBY		-	75	-	25
10-KING ROOM BATHROOM-04		-	75	-	29
10-KING ROOM-04		-	75	-	51
10-KING ROOM BATHROOM-03		-	75	-	29
10-KING ROOM-03		-	75	-	58
10-KING ROOM-02		-	75	-	54
10-KING ROOM BATHROOM-02		-	75	-	29
10-KING ROOM BATHROOM-01		-	75	-	29
10-KING ROOM-01		-	75	-	52
10-DOUBLE ROOM-01		-	75	-	56
10-DOUBLE ROOM BATHROOM-02		-	75	-	29
10-DOUBLE ROOM BATHROOM-01		-	75	-	30
10-DOUBLE ROOM-02		-	75	-	55
10-FIRE STAIR-02		-	75	-	52
10-ADA KING ROOM-03		-	75	-	65
10-ADA KING ROOM BATHROOM-03		-	75	-	36
10-ADA KING ROOM-02		-	75	-	63
10-ADA KING ROOM BATHROOM-02		-	75	-	33
10-CORRIDOR-05		-	75	-	261
10-ADA KING ROOM BATHROOM-01		-	75	-	31
10-ADA KING ROOM-01		-	75	-	97
11-DOUBLE ROOM-03		-	75	-	55
11-DOUBLE ROOM BATHROOM-03		-	75	-	29
11-KING ROOM-06		-	75	-	50
11-KING ROOM BATHROOM-06		-	75	-	29
11-KING ROOM-05		-	75	-	51
11-KING ROOM BATHROOM-05		-	75	-	29
11-DOUBLE ROOM-04		-	75	-	63
11-DOUBLE ROOM BATHROOM-04		-	75	-	28
11-KING ROOM BATHROOM-08		-	75	-	29
11-KING ROOM-08		-	75	-	51
11-KING ROOM-07		-	75	-	54
11-KING ROOM BATHROOM-07		-	75	-	28
11-FIRE STAIR-01		-	75	-	44
11-CIRCULATION LOBBY		-	75	-	25
11-KING ROOM BATHROOM-04		-	75	-	29
11-KING ROOM-04		-	75	-	51
11-KING ROOM BATHROOM-03		-	75	-	29
11-KING ROOM-03		-	75	-	58
11-KING ROOM-02		-	75	-	54
11-KING ROOM BATHROOM-02		-	75	-	29
11-KING ROOM BATHROOM-01		-	75	-	29

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	Luminaire	Lamp	Display lamp	General lighting [W]
Standard value	60	60	22	
11-KING ROOM-01	-	75	-	52
11-DOUBLE ROOM-01	-	75	-	56
11-DOUBLE ROOM BATHROOM-02	-	75	-	29
11-DOUBLE ROOM BATHROOM-01	-	75	-	30
11-DOUBLE ROOM-02	-	75	-	55
11-FIRE STAIR-02	-	75	-	52
11-ADA KING ROOM-03	-	75	-	65
11-ADA KING ROOM BATHROOM-03	-	75	-	36
11-ADA KING ROOM-02	-	75	-	63
11-ADA KING ROOM BATHROOM-02	-	75	-	33
11-CORRIDOR-05	-	75	-	261
11-ADA KING ROOM BATHROOM-01	-	75	-	31
11-ADA KING ROOM-01	-	75	-	97
12-DOUBLE ROOM-03	-	75	-	55
12-DOUBLE ROOM BATHROOM-03	-	75	-	29
12-KING ROOM-06	-	75	-	50
12-KING ROOM BATHROOM-06	-	75	-	29
12-KING ROOM-05	-	75	-	51
12-KING ROOM BATHROOM-05	-	75	-	29
12-DOUBLE ROOM-04	-	75	-	63
12-DOUBLE ROOM BATHROOM-04	-	75	-	28
12-KING ROOM BATHROOM-08	-	75	-	29
12-KING ROOM-08	-	75	-	51
12-KING ROOM-07	-	75	-	54
12-KING ROOM BATHROOM-07	-	75	-	28
12-FIRE STAIR-01	-	75	-	44
12-CIRCULATION LOBBY	-	75	-	25
12-KING ROOM BATHROOM-04	-	75	-	29
12-KING ROOM-04	-	75	-	51
12-KING ROOM BATHROOM-03	-	75	-	29
12-KING ROOM-03	-	75	-	58
12-KING ROOM-02	-	75	-	54
12-KING ROOM BATHROOM-02	-	75	-	29
12-KING ROOM BATHROOM-01	-	75	-	29
12-KING ROOM-01	-	75	-	52
12-DOUBLE ROOM-01	-	75	-	56
12-DOUBLE ROOM BATHROOM-02	-	75	-	29
12-DOUBLE ROOM BATHROOM-01	-	75	-	30
12-DOUBLE ROOM-02	-	75	-	55
12-FIRE STAIR-02	-	75	-	52
12-ADA KING ROOM-03	-	75	-	65
12-ADA KING ROOM BATHROOM-03	-	75	-	36
12-ADA KING ROOM-02	-	75	-	63

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	Luminaire	Lamp	Display lamp	General lighting [W]
Standard value	60	60	22	
12-ADA KING ROOM BATHROOM-02	-	75	-	33
12-CORRIDOR-05	-	75	-	261
12-ADA KING ROOM BATHROOM-01	-	75	-	31
12-ADA KING ROOM-01	-	75	-	97
13-DOUBLE ROOM-03	-	75	-	55
13-DOUBLE ROOM BATHROOM-03	-	75	-	29
13-KING ROOM-06	-	75	-	50
13-KING ROOM BATHROOM-06	-	75	-	29
13-KING ROOM-05	-	75	-	51
13-KING ROOM BATHROOM-05	-	75	-	29
13-DOUBLE ROOM-04	-	75	-	63
13-DOUBLE ROOM BATHROOM-04	-	75	-	28
13-KING ROOM BATHROOM-08	-	75	-	29
13-KING ROOM-08	-	75	-	51
13-KING ROOM-07	-	75	-	54
13-KING ROOM BATHROOM-07	-	75	-	28
13-FIRE STAIR-01	-	75	-	44
13-CIRCULATION LOBBY	-	75	-	25
13-KING ROOM BATHROOM-04	-	75	-	29
13-KING ROOM-04	-	75	-	51
13-KING ROOM BATHROOM-03	-	75	-	29
13-KING ROOM-03	-	75	-	58
13-KING ROOM-02	-	75	-	54
13-KING ROOM BATHROOM-02	-	75	-	29
13-KING ROOM BATHROOM-01	-	75	-	29
13-KING ROOM-01	-	75	-	52
13-DOUBLE ROOM-01	-	75	-	56
13-DOUBLE ROOM BATHROOM-02	-	75	-	29
13-DOUBLE ROOM BATHROOM-01	-	75	-	30
13-DOUBLE ROOM-02	-	75	-	55
13-FIRE STAIR-02	-	75	-	52
13-ADA KING ROOM-03	-	75	-	65
13-ADA KING ROOM BATHROOM-03	-	75	-	36
13-ADA KING ROOM-02	-	75	-	63
13-ADA KING ROOM BATHROOM-02	-	75	-	33
13-CORRIDOR-05	-	75	-	261
13-ADA KING ROOM BATHROOM-01	-	75	-	31
13-ADA KING ROOM-01	-	75	-	97
14-DOUBLE ROOM-03	-	75	-	55
14-DOUBLE ROOM BATHROOM-03	-	75	-	29
14-KING ROOM-06	-	75	-	50
14-KING ROOM BATHROOM-06	-	75	-	29
14-KING ROOM-05	-	75	-	51

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	Luminaire	Lamp	Display lamp	General lighting [W]
Standard value	60	60	22	
14-KING ROOM BATHROOM-05	-	75	-	29
14-DOUBLE ROOM-04	-	75	-	63
14-DOUBLE ROOM BATHROOM-04	-	75	-	28
14-KING ROOM BATHROOM-08	-	75	-	29
14-KING ROOM-08	-	75	-	51
14-KING ROOM-07	-	75	-	54
14-KING ROOM BATHROOM-07	-	75	-	28
14-FIRE STAIR-01	-	75	-	44
14-CIRCULATION LOBBY	-	75	-	25
14-KING ROOM BATHROOM-04	-	75	-	29
14-KING ROOM-04	-	75	-	51
14-KING ROOM BATHROOM-03	-	75	-	29
14-KING ROOM-03	-	75	-	58
14-KING ROOM-02	-	75	-	54
14-KING ROOM BATHROOM-02	-	75	-	29
14-KING ROOM BATHROOM-01	-	75	-	29
14-KING ROOM-01	-	75	-	52
14-DOUBLE ROOM-01	-	75	-	56
14-DOUBLE ROOM BATHROOM-02	-	75	-	29
14-DOUBLE ROOM BATHROOM-01	-	75	-	30
14-DOUBLE ROOM-02	-	75	-	55
14-FIRE STAIR-02	-	75	-	52
14-ADA KING ROOM-03	-	75	-	65
14-ADA KING ROOM BATHROOM-03	-	75	-	36
14-ADA KING ROOM-02	-	75	-	63
14-ADA KING ROOM BATHROOM-02	-	75	-	33
14-CORRIDOR-05	-	75	-	261
14-ADA KING ROOM BATHROOM-01	-	75	-	31
14-ADA KING ROOM-01	-	75	-	97
23-PLANT ROOM-04	75	-	-	1382
15-2 BED APARTMENT-01-BEDROOM	-	75	-	43
17-2 BED APARTMENT-01-BEDROOM	-	75	-	43
16-2 BED APARTMENT-01-BEDROOM	-	75	-	43
18-2 BED APARTMENT-01-BEDROOM	-	75	-	43
19-2 BED APARTMENT-01-BEDROOM	-	75	-	43
20-2 BED APARTMENT-01-BEDROOM	-	75	-	43
21-2 BED APARTMENT-01-BEDROOM	-	75	-	43
01-RESTURANT RESTROOMS	-	75	-	289
0-LOBBY	-	75	-	423
00-WXYZ STORAGE	75	-	-	30
01-RESTURANT	-	75	65	230
B1-PLANT ROOM	75	-	-	2256
B1 - CIRCULATION	-	75	-	58

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	Luminaire	Lamp	Display lamp	General lighting [W]
Standard value	60	60	22	
02-CORRIDOR-04	-	75	-	76
01-RESTURANT LOUNGE	-	75	65	304
02-CLUB ROOM	75	-	-	224
02-CLUB ROOM	75	-	-	305
02-CLUB ROOM DL	75	-	-	844
22-ROOFTOP RESTURANT	-	75	65	178
22-ROOFTOP RESTURANT DL	-	75	65	271
22-ROOFTOP BAR/LOBBY DL	-	75	65	515
22-ROOFTOP BAR/LOBBY	-	75	65	105
00-LOBBY	-	75	-	436
00-LOBBY DL	-	75	-	211

Criterion 3: The spaces in the building should have appropriate passive control measures to limit solar gains

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
00-WORK AREA	N/A	N/A
00-BREAK ROOM	N/A	N/A
00-GM OFFICE	N/A	N/A
00-BOH CORRIDOR-03	N/A	N/A
00-DATA CENTRE	N/A	N/A
00-EMPLOYEES RESTROOM	N/A	N/A
00-PUBLIC RESTROOMS	N/A	N/A
00-FUNCTION ROOM	N/A	N/A
00-CHANGING ROOMS	N/A	N/A
00-GYM	N/A	N/A
00-POOL	N/A	N/A
00-CORRIDOR-01	N/A	N/A
00-CORRIDOR-02	N/A	N/A
00-BOH CORRIDOR-02	N/A	N/A
01-CIRCULATION LOBBY	N/A	N/A
01-RESTURANT KITCHEN	N/A	N/A
01-RESTURANT DINING	N/A	N/A
00-BOH CORRIDOR-01	N/A	N/A
15-2 BED APARTMENT-02-BATHROOM	N/A	N/A
15-1 BED APARTMENT-04-BEDROOM	NO (-71.7%)	NO
15-1 BED APARTMENT-04-BATHROOM	N/A	N/A
15-2 BED APARTMENT-02-BEDROOM	NO (-76.5%)	NO
15-2 BED APARTMENT-02-LOUNGE	NO (-63.1%)	NO
15-2 BED APARTMENT-02-BEDROOM	NO (-67%)	NO
15-2 BED APARTMENT-02-BATHROOM	N/A	N/A
15-1 BED APARTMENT-03-BATHROOM	N/A	N/A
15-1 BED APARTMENT-02-LOUNGE	NO (-70.7%)	NO
15-1 BED APARTMENT-02-BEDROOM	NO (-70.5%)	NO
15-1 BED APARTMENT-02-BATHROOM	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
15-2 BED APARTMENT-01-BATHROOM	NO (-37.4%)	NO
15-2 BED APARTMENT-01-BEDROOM	NO (-63.2%)	NO
15-2 BED APARTMENT-01-BATHROOM	N/A	N/A
15-2 BED APARTMENT-01-LOUNGE	NO (-70.9%)	NO
15-1 BED APARTMENT-01-LOUNGE	NO (-49.6%)	NO
15-1 BED APARTMENT-01-BATHROOM	N/A	N/A
15-1 BED APARTMENT-01-BEDROOM	NO (-42.9%)	NO
15-1 BED APARTMENT-05-BEDROOM	NO (-42.6%)	NO
15-1 BED APARTMENT-05-BATHROOM	N/A	N/A
15-1 BED APARTMENT-05-LOUNGE	NO (-61.4%)	NO
15-1 BED APARTMENT-03-LOUNGE	NO (-62.1%)	NO
15-1 BED APARTMENT-03-BEDROOM	NO (-43.7%)	NO
22-LIFT-CIRCULATION LOBBY	N/A	N/A
22-ROOFTOP MALE WC	N/A	N/A
22-ROOFTOP FEMALE WC	N/A	N/A
22-BAR BOH	N/A	N/A
02-CIRCULATION LOBBY	N/A	N/A
02-CLUB RESTROOMS	N/A	N/A
02-CORRIDOR-03	N/A	N/A
03-DOUBLE ROOM-03	NO (-52.9%)	NO
03-DOUBLE ROOM BATHROOM-03	N/A	N/A
03-KING ROOM-06	NO (-44.2%)	NO
03-KING ROOM BATHROOM-06	N/A	N/A
03-KING ROOM-05	NO (-62.8%)	NO
03-KING ROOM BATHROOM-05	N/A	N/A
03-DOUBLE ROOM-04	NO (-76.8%)	NO
03-DOUBLE ROOM BATHROOM-04	N/A	N/A
03-KING ROOM BATHROOM-08	N/A	N/A
03-KING ROOM-08	NO (-82.3%)	NO
03-KING ROOM-07	NO (-81.9%)	NO
03-KING ROOM BATHROOM-07	N/A	N/A
03-CIRCULATION LOBBY	N/A	N/A
03-KING ROOM BATHROOM-04	N/A	N/A
03-KING ROOM-04	NO (-84.6%)	NO
03-KING ROOM BATHROOM-03	N/A	N/A
03-KING ROOM-03	NO (-43.1%)	NO
03-KING ROOM-02	NO (-41.5%)	NO
03-KING ROOM BATHROOM-02	N/A	N/A
03-KING ROOM BATHROOM-01	N/A	N/A
03-KING ROOM-01	NO (-42.6%)	NO
03-DOUBLE ROOM-01	NO (-25.7%)	NO
03-DOUBLE ROOM BATHROOM-02	N/A	N/A
03-DOUBLE ROOM BATHROOM-01	N/A	N/A
03-DOUBLE ROOM-02	NO (-81.6%)	NO
03-ADA KING ROOM-03	NO (-64.4%)	NO
03-ADA KING ROOM BATHROOM-03	NO (-86.4%)	NO
03-ADA KING ROOM-02	NO (-84.1%)	NO
03-ADA KING ROOM BATHROOM-02	N/A	N/A
03-CORRIDOR-05	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
03-ADA KING ROOM BATHROOM-01	N/A	N/A
03-ADA KING ROOM-01	NO (-52.7%)	NO
15-CORRIDOR-06	N/A	N/A
15-1 BED APPARTMENT - LOUNGE	NO (-72.6%)	NO
15-CORRIDOR-01	N/A	N/A
16-2 BED APARTMENT-02-BATHROOM	N/A	N/A
16-1 BED APARTMENT-04-BEDROOM	NO (-71.3%)	NO
16-1 BED APARTMENT-04-BATHROOM	N/A	N/A
16-2 BED APARTMENT-02-BEDROOM	NO (-75.8%)	NO
16-2 BED APARTMENT-02-LOUNGE	NO (-63%)	NO
16-2 BED APARTMENT-02-BEDROOM	NO (-66.9%)	NO
16-2 BED APARTMENT-02-BATHROOM	N/A	N/A
16-1 BED APARTMENT-03-BATHROOM	N/A	N/A
16-1 BED APARTMENT-02-LOUNGE	NO (-70.7%)	NO
16-1 BED APARTMENT-02-BEDROOM	NO (-70.5%)	NO
16-1 BED APARTMENT-02-BATHROOM	N/A	N/A
16-2 BED APARTMENT-01-BATHROOM	NO (-37.4%)	NO
16-2 BED APARTMENT-01-BEDROOM	NO (-63.2%)	NO
16-2 BED APARTMENT-01-BATHROOM	N/A	N/A
16-2 BED APARTMENT-01-LOUNGE	NO (-70.7%)	NO
16-1 BED APARTMENT-01-LOUNGE	NO (-49.6%)	NO
16-1 BED APARTMENT-01-BATHROOM	N/A	N/A
16-1 BED APARTMENT-01-BEDROOM	NO (-42.9%)	NO
16-1 BED APARTMENT-05-BEDROOM	NO (-42.6%)	NO
16-1 BED APARTMENT-05-BATHROOM	N/A	N/A
16-1 BED APARTMENT-05-LOUNGE	NO (-61.4%)	NO
16-1 BED APARTMENT-03-LOUNGE	NO (-62.1%)	NO
16-1 BED APARTMENT-03-BEDROOM	NO (-43.7%)	NO
16-CORRIDOR-06	N/A	N/A
16-1 BED APPARTMENT - LOUNGE	NO (-72.6%)	NO
16-CORRIDOR-01	N/A	N/A
17-2 BED APARTMENT-02-BATHROOM	N/A	N/A
17-1 BED APARTMENT-04-BEDROOM	NO (-71.1%)	NO
17-1 BED APARTMENT-04-BATHROOM	N/A	N/A
17-2 BED APARTMENT-02-BEDROOM	NO (-75.3%)	NO
17-2 BED APARTMENT-02-LOUNGE	NO (-62.9%)	NO
17-2 BED APARTMENT-02-BEDROOM	NO (-66.9%)	NO
17-2 BED APARTMENT-02-BATHROOM	N/A	N/A
17-1 BED APARTMENT-03-BATHROOM	N/A	N/A
17-1 BED APARTMENT-02-LOUNGE	NO (-70.7%)	NO
17-1 BED APARTMENT-02-BEDROOM	NO (-70.5%)	NO
17-1 BED APARTMENT-02-BATHROOM	N/A	N/A
17-2 BED APARTMENT-01-BATHROOM	NO (-37.4%)	NO
17-2 BED APARTMENT-01-BEDROOM	NO (-63.2%)	NO
17-2 BED APARTMENT-01-BATHROOM	N/A	N/A
17-2 BED APARTMENT-01-LOUNGE	NO (-70.7%)	NO
17-1 BED APARTMENT-01-LOUNGE	NO (-49.6%)	NO
17-1 BED APARTMENT-01-BATHROOM	N/A	N/A
17-1 BED APARTMENT-01-BEDROOM	NO (-42.9%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
17-1 BED APARTMENT-05-BEDROOM	NO (-42.6%)	NO
17-1 BED APARTMENT-05-BATHROOM	N/A	N/A
17-1 BED APARTMENT-05-LOUNGE	NO (-61.4%)	NO
17-1 BED APARTMENT-03-LOUNGE	NO (-62.1%)	NO
17-1 BED APARTMENT-03-BEDROOM	NO (-43.7%)	NO
17-CORRIDOR-06	N/A	N/A
17-1 BED APPARTMENT - LOUNGE	NO (-72.3%)	NO
17-CORRIDOR-01	N/A	N/A
18-2 BED APARTMENT-02-BATHROOM	N/A	N/A
18-1 BED APARTMENT-04-BEDROOM	NO (-71%)	NO
18-1 BED APARTMENT-04-BATHROOM	N/A	N/A
18-2 BED APARTMENT-02-BEDROOM	NO (-75.2%)	NO
18-2 BED APARTMENT-02-LOUNGE	NO (-62.9%)	NO
18-2 BED APARTMENT-02-BEDROOM	NO (-66.9%)	NO
18-2 BED APARTMENT-02-BATHROOM	N/A	N/A
18-1 BED APARTMENT-03-BATHROOM	N/A	N/A
18-1 BED APARTMENT-02-LOUNGE	NO (-70.7%)	NO
18-1 BED APARTMENT-02-BEDROOM	NO (-70.5%)	NO
18-1 BED APARTMENT-02-BATHROOM	N/A	N/A
18-2 BED APARTMENT-01-BATHROOM	NO (-37.4%)	NO
18-2 BED APARTMENT-01-BEDROOM	NO (-63.2%)	NO
18-2 BED APARTMENT-01-BATHROOM	N/A	N/A
18-2 BED APARTMENT-01-LOUNGE	NO (-70.6%)	NO
18-1 BED APARTMENT-01-LOUNGE	NO (-49.6%)	NO
18-1 BED APARTMENT-01-BATHROOM	N/A	N/A
18-1 BED APARTMENT-01-BEDROOM	NO (-42.9%)	NO
18-1 BED APARTMENT-05-BEDROOM	NO (-42.6%)	NO
18-1 BED APARTMENT-05-BATHROOM	N/A	N/A
18-1 BED APARTMENT-05-LOUNGE	NO (-61.4%)	NO
18-1 BED APARTMENT-03-LOUNGE	NO (-61.6%)	NO
18-1 BED APARTMENT-03-BEDROOM	NO (-43.7%)	NO
18-CORRIDOR-06	N/A	N/A
18-1 BED APPARTMENT - LOUNGE	NO (-72.2%)	NO
18-CORRIDOR-01	N/A	N/A
19-2 BED APARTMENT-02-BATHROOM	N/A	N/A
19-1 BED APARTMENT-04-BEDROOM	NO (-71%)	NO
19-1 BED APARTMENT-04-BATHROOM	N/A	N/A
19-2 BED APARTMENT-02-BEDROOM	NO (-75.2%)	NO
19-2 BED APARTMENT-02-LOUNGE	NO (-62.8%)	NO
19-2 BED APARTMENT-02-BEDROOM	NO (-66.9%)	NO
19-2 BED APARTMENT-02-BATHROOM	N/A	N/A
19-1 BED APARTMENT-03-BATHROOM	N/A	N/A
19-1 BED APARTMENT-02-LOUNGE	NO (-70.7%)	NO
19-1 BED APARTMENT-02-BEDROOM	NO (-70.5%)	NO
19-1 BED APARTMENT-02-BATHROOM	N/A	N/A
19-2 BED APARTMENT-01-BATHROOM	NO (-37.4%)	NO
19-2 BED APARTMENT-01-BEDROOM	NO (-63.2%)	NO
19-2 BED APARTMENT-01-BATHROOM	N/A	N/A
19-2 BED APARTMENT-01-LOUNGE	NO (-70.5%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
19-1 BED APARTMENT-01-LOUNGE	NO (-49.6%)	NO
19-1 BED APARTMENT-01-BATHROOM	N/A	N/A
19-1 BED APARTMENT-01-BEDROOM	NO (-42.9%)	NO
19-1 BED APARTMENT-05-BEDROOM	NO (-42.6%)	NO
19-1 BED APARTMENT-05-BATHROOM	N/A	N/A
19-1 BED APARTMENT-05-LOUNGE	NO (-61.4%)	NO
19-1 BED APARTMENT-03-LOUNGE	NO (-61.6%)	NO
19-1 BED APARTMENT-03-BEDROOM	NO (-43.7%)	NO
19-CORRIDOR-06	N/A	N/A
19-1 BED APPARTMENT - LOUNGE	NO (-72.2%)	NO
19-CORRIDOR-01	N/A	N/A
20-2 BED APARTMENT-02-BATHROOM	N/A	N/A
20-1 BED APARTMENT-04-BEDROOM	NO (-70.8%)	NO
20-1 BED APARTMENT-04-BATHROOM	N/A	N/A
20-2 BED APARTMENT-02-BEDROOM	NO (-75.1%)	NO
20-2 BED APARTMENT-02-LOUNGE	NO (-62.8%)	NO
20-2 BED APARTMENT-02-BEDROOM	NO (-66.9%)	NO
20-2 BED APARTMENT-02-BATHROOM	N/A	N/A
20-1 BED APARTMENT-03-BATHROOM	N/A	N/A
20-1 BED APARTMENT-02-LOUNGE	NO (-70.5%)	NO
20-1 BED APARTMENT-02-BEDROOM	NO (-70%)	NO
20-1 BED APARTMENT-02-BATHROOM	N/A	N/A
20-2 BED APARTMENT-01-BATHROOM	NO (-37.4%)	NO
20-2 BED APARTMENT-01-BEDROOM	NO (-63.2%)	NO
20-2 BED APARTMENT-01-BATHROOM	N/A	N/A
20-2 BED APARTMENT-01-LOUNGE	NO (-70.3%)	NO
20-1 BED APARTMENT-01-LOUNGE	NO (-49.6%)	NO
20-1 BED APARTMENT-01-BATHROOM	N/A	N/A
20-1 BED APARTMENT-01-BEDROOM	NO (-42.9%)	NO
20-1 BED APARTMENT-05-BEDROOM	NO (-42.6%)	NO
20-1 BED APARTMENT-05-BATHROOM	N/A	N/A
20-1 BED APARTMENT-05-LOUNGE	NO (-61.4%)	NO
20-1 BED APARTMENT-03-LOUNGE	NO (-62.1%)	NO
20-1 BED APARTMENT-03-BEDROOM	NO (-43.7%)	NO
20-CORRIDOR-06	N/A	N/A
20-1 BED APPARTMENT - LOUNGE	NO (-72.2%)	NO
20-CORRIDOR-01	N/A	N/A
21-2 BED APARTMENT-02-BATHROOM	N/A	N/A
21-1 BED APARTMENT-04-BEDROOM	NO (-70.5%)	NO
21-1 BED APARTMENT-04-BATHROOM	N/A	N/A
21-2 BED APARTMENT-02-BEDROOM	NO (-75.1%)	NO
21-2 BED APARTMENT-02-LOUNGE	NO (-62.8%)	NO
21-2 BED APARTMENT-02-BEDROOM	NO (-66.9%)	NO
21-2 BED APARTMENT-02-BATHROOM	N/A	N/A
21-1 BED APARTMENT-03-BATHROOM	N/A	N/A
21-1 BED APARTMENT-02-LOUNGE	NO (-69.6%)	NO
21-1 BED APARTMENT-02-BEDROOM	NO (-69.5%)	NO
21-1 BED APARTMENT-02-BATHROOM	N/A	N/A
21-2 BED APARTMENT-01-BATHROOM	NO (-37.4%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
21-2 BED APARTMENT-01-BEDROOM	NO (-63.2%)	NO
21-2 BED APARTMENT-01-BATHROOM	N/A	N/A
21-2 BED APARTMENT-01-LOUNGE	NO (-70.2%)	NO
21-1 BED APARTMENT-01-LOUNGE	NO (-49.6%)	NO
21-1 BED APARTMENT-01-BATHROOM	N/A	N/A
21-1 BED APARTMENT-01-BEDROOM	NO (-42.9%)	NO
21-1 BED APARTMENT-05-BEDROOM	NO (-42.6%)	NO
21-1 BED APARTMENT-05-BATHROOM	N/A	N/A
21-1 BED APARTMENT-05-LOUNGE	NO (-61.4%)	NO
21-1 BED APARTMENT-03-LOUNGE	NO (-62.1%)	NO
21-1 BED APARTMENT-03-BEDROOM	NO (-43.7%)	NO
21-CORRIDOR-06	N/A	N/A
21-1 BED APPARTMENT - LOUNGE	NO (-71.1%)	NO
21-CORRIDOR-01	N/A	N/A
04-DOUBLE ROOM-03	NO (-52.9%)	NO
04-DOUBLE ROOM BATHROOM-03	N/A	N/A
04-KING ROOM-06	NO (-44.2%)	NO
04-KING ROOM BATHROOM-06	N/A	N/A
04-KING ROOM-05	NO (-62.7%)	NO
04-KING ROOM BATHROOM-05	N/A	N/A
04-DOUBLE ROOM-04	NO (-75.2%)	NO
04-DOUBLE ROOM BATHROOM-04	N/A	N/A
04-KING ROOM BATHROOM-08	N/A	N/A
04-KING ROOM-08	NO (-81%)	NO
04-KING ROOM-07	NO (-81.3%)	NO
04-KING ROOM BATHROOM-07	N/A	N/A
04-CIRCULATION LOBBY	N/A	N/A
04-KING ROOM BATHROOM-04	N/A	N/A
04-KING ROOM-04	NO (-83.8%)	NO
04-KING ROOM BATHROOM-03	N/A	N/A
04-KING ROOM-03	NO (-43.1%)	NO
04-KING ROOM-02	NO (-41.5%)	NO
04-KING ROOM BATHROOM-02	N/A	N/A
04-KING ROOM BATHROOM-01	N/A	N/A
04-KING ROOM-01	NO (-42.6%)	NO
04-DOUBLE ROOM-01	NO (-25.7%)	NO
04-DOUBLE ROOM BATHROOM-02	N/A	N/A
04-DOUBLE ROOM BATHROOM-01	N/A	N/A
04-DOUBLE ROOM-02	NO (-81.3%)	NO
04-ADA KING ROOM-03	NO (-63.9%)	NO
04-ADA KING ROOM BATHROOM-03	NO (-85.5%)	NO
04-ADA KING ROOM-02	NO (-83.4%)	NO
04-ADA KING ROOM BATHROOM-02	N/A	N/A
04-CORRIDOR-05	N/A	N/A
04-ADA KING ROOM BATHROOM-01	N/A	N/A
04-ADA KING ROOM-01	NO (-52.4%)	NO
05-DOUBLE ROOM-03	NO (-52.8%)	NO
05-DOUBLE ROOM BATHROOM-03	N/A	N/A
05-KING ROOM-06	NO (-44%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
05-KING ROOM BATHROOM-06	N/A	N/A
05-KING ROOM-05	NO (-62.6%)	NO
05-KING ROOM BATHROOM-05	N/A	N/A
05-DOUBLE ROOM-04	NO (-74.1%)	NO
05-DOUBLE ROOM BATHROOM-04	N/A	N/A
05-KING ROOM BATHROOM-08	N/A	N/A
05-KING ROOM-08	NO (-79.4%)	NO
05-KING ROOM-07	NO (-79.9%)	NO
05-KING ROOM BATHROOM-07	N/A	N/A
05-CIRCULATION LOBBY	N/A	N/A
05-KING ROOM BATHROOM-04	N/A	N/A
05-KING ROOM-04	NO (-82.3%)	NO
05-KING ROOM BATHROOM-03	N/A	N/A
05-KING ROOM-03	NO (-43.1%)	NO
05-KING ROOM-02	NO (-41.5%)	NO
05-KING ROOM BATHROOM-02	N/A	N/A
05-KING ROOM BATHROOM-01	N/A	N/A
05-KING ROOM-01	NO (-42.6%)	NO
05-DOUBLE ROOM-01	NO (-25.7%)	NO
05-DOUBLE ROOM BATHROOM-02	N/A	N/A
05-DOUBLE ROOM BATHROOM-01	N/A	N/A
05-DOUBLE ROOM-02	NO (-80.2%)	NO
05-ADA KING ROOM-03	NO (-63.8%)	NO
05-ADA KING ROOM BATHROOM-03	NO (-85.4%)	NO
05-ADA KING ROOM-02	NO (-82.7%)	NO
05-ADA KING ROOM BATHROOM-02	N/A	N/A
05-CORRIDOR-05	N/A	N/A
05-ADA KING ROOM BATHROOM-01	N/A	N/A
05-ADA KING ROOM-01	NO (-52%)	NO
06-DOUBLE ROOM-03	NO (-52.6%)	NO
06-DOUBLE ROOM BATHROOM-03	N/A	N/A
06-KING ROOM-06	NO (-44%)	NO
06-KING ROOM BATHROOM-06	N/A	N/A
06-KING ROOM-05	NO (-62.6%)	NO
06-KING ROOM BATHROOM-05	N/A	N/A
06-DOUBLE ROOM-04	NO (-72.8%)	NO
06-DOUBLE ROOM BATHROOM-04	N/A	N/A
06-KING ROOM BATHROOM-08	N/A	N/A
06-KING ROOM-08	NO (-78.2%)	NO
06-KING ROOM-07	NO (-79.2%)	NO
06-KING ROOM BATHROOM-07	N/A	N/A
06-CIRCULATION LOBBY	N/A	N/A
06-KING ROOM BATHROOM-04	N/A	N/A
06-KING ROOM-04	NO (-80.8%)	NO
06-KING ROOM BATHROOM-03	N/A	N/A
06-KING ROOM-03	NO (-43.1%)	NO
06-KING ROOM-02	NO (-41.5%)	NO
06-KING ROOM BATHROOM-02	N/A	N/A
06-KING ROOM BATHROOM-01	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
06-KING ROOM-01	NO (-42.5%)	NO
06-DOUBLE ROOM-01	NO (-25.6%)	NO
06-DOUBLE ROOM BATHROOM-02	N/A	N/A
06-DOUBLE ROOM BATHROOM-01	N/A	N/A
06-DOUBLE ROOM-02	NO (-79.2%)	NO
06-ADA KING ROOM-03	NO (-63.5%)	NO
06-ADA KING ROOM BATHROOM-03	NO (-84.6%)	NO
06-ADA KING ROOM-02	NO (-81.8%)	NO
06-ADA KING ROOM BATHROOM-02	N/A	N/A
06-CORRIDOR-05	N/A	N/A
06-ADA KING ROOM BATHROOM-01	N/A	N/A
06-ADA KING ROOM-01	NO (-51.4%)	NO
07-DOUBLE ROOM-03	NO (-52.5%)	NO
07-DOUBLE ROOM BATHROOM-03	N/A	N/A
07-KING ROOM-06	NO (-44%)	NO
07-KING ROOM BATHROOM-06	N/A	N/A
07-KING ROOM-05	NO (-62.6%)	NO
07-KING ROOM BATHROOM-05	N/A	N/A
07-DOUBLE ROOM-04	NO (-71.7%)	NO
07-DOUBLE ROOM BATHROOM-04	N/A	N/A
07-KING ROOM BATHROOM-08	N/A	N/A
07-KING ROOM-08	NO (-77.6%)	NO
07-KING ROOM-07	NO (-78.5%)	NO
07-KING ROOM BATHROOM-07	N/A	N/A
07-CIRCULATION LOBBY	N/A	N/A
07-KING ROOM BATHROOM-04	N/A	N/A
07-KING ROOM-04	NO (-79.5%)	NO
07-KING ROOM BATHROOM-03	N/A	N/A
07-KING ROOM-03	NO (-43%)	NO
07-KING ROOM-02	NO (-41.4%)	NO
07-KING ROOM BATHROOM-02	N/A	N/A
07-KING ROOM BATHROOM-01	N/A	N/A
07-KING ROOM-01	NO (-42.4%)	NO
07-DOUBLE ROOM-01	NO (-25.5%)	NO
07-DOUBLE ROOM BATHROOM-02	N/A	N/A
07-DOUBLE ROOM BATHROOM-01	N/A	N/A
07-DOUBLE ROOM-02	NO (-77.3%)	NO
07-ADA KING ROOM-03	NO (-62.9%)	NO
07-ADA KING ROOM BATHROOM-03	NO (-83.5%)	NO
07-ADA KING ROOM-02	NO (-80.4%)	NO
07-ADA KING ROOM BATHROOM-02	N/A	N/A
07-CORRIDOR-05	N/A	N/A
07-ADA KING ROOM BATHROOM-01	N/A	N/A
07-ADA KING ROOM-01	NO (-51%)	NO
08-DOUBLE ROOM-03	NO (-52.5%)	NO
08-DOUBLE ROOM BATHROOM-03	N/A	N/A
08-KING ROOM-06	NO (-43.9%)	NO
08-KING ROOM BATHROOM-06	N/A	N/A
08-KING ROOM-05	NO (-62.6%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
08-KING ROOM BATHROOM-05	N/A	N/A
08-DOUBLE ROOM-04	NO (-70%)	NO
08-DOUBLE ROOM BATHROOM-04	N/A	N/A
08-KING ROOM BATHROOM-08	N/A	N/A
08-KING ROOM-08	NO (-76.8%)	NO
08-KING ROOM-07	NO (-77.2%)	NO
08-KING ROOM BATHROOM-07	N/A	N/A
08-CIRCULATION LOBBY	N/A	N/A
08-KING ROOM BATHROOM-04	N/A	N/A
08-KING ROOM-04	NO (-77.7%)	NO
08-KING ROOM BATHROOM-03	N/A	N/A
08-KING ROOM-03	NO (-42.9%)	NO
08-KING ROOM-02	NO (-41.4%)	NO
08-KING ROOM BATHROOM-02	N/A	N/A
08-KING ROOM BATHROOM-01	N/A	N/A
08-KING ROOM-01	NO (-42.4%)	NO
08-DOUBLE ROOM-01	NO (-25.5%)	NO
08-DOUBLE ROOM BATHROOM-02	N/A	N/A
08-DOUBLE ROOM BATHROOM-01	N/A	N/A
08-DOUBLE ROOM-02	NO (-76%)	NO
08-ADA KING ROOM-03	NO (-62.5%)	NO
08-ADA KING ROOM BATHROOM-03	NO (-82.7%)	NO
08-ADA KING ROOM-02	NO (-77.8%)	NO
08-ADA KING ROOM BATHROOM-02	N/A	N/A
08-CORRIDOR-05	N/A	N/A
08-ADA KING ROOM BATHROOM-01	N/A	N/A
08-ADA KING ROOM-01	NO (-50.1%)	NO
09-DOUBLE ROOM-03	NO (-52.3%)	NO
09-DOUBLE ROOM BATHROOM-03	N/A	N/A
09-KING ROOM-06	NO (-43.7%)	NO
09-KING ROOM BATHROOM-06	N/A	N/A
09-KING ROOM-05	NO (-62.4%)	NO
09-KING ROOM BATHROOM-05	N/A	N/A
09-DOUBLE ROOM-04	NO (-69.2%)	NO
09-DOUBLE ROOM BATHROOM-04	N/A	N/A
09-KING ROOM BATHROOM-08	N/A	N/A
09-KING ROOM-08	NO (-75.6%)	NO
09-KING ROOM-07	NO (-75.7%)	NO
09-KING ROOM BATHROOM-07	N/A	N/A
09-CIRCULATION LOBBY	N/A	N/A
09-KING ROOM BATHROOM-04	N/A	N/A
09-KING ROOM-04	NO (-76.6%)	NO
09-KING ROOM BATHROOM-03	N/A	N/A
09-KING ROOM-03	NO (-42.9%)	NO
09-KING ROOM-02	NO (-41.4%)	NO
09-KING ROOM BATHROOM-02	N/A	N/A
09-KING ROOM BATHROOM-01	N/A	N/A
09-KING ROOM-01	NO (-42.4%)	NO
09-DOUBLE ROOM-01	NO (-25.5%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
09-DOUBLE ROOM BATHROOM-02	N/A	N/A
09-DOUBLE ROOM BATHROOM-01	N/A	N/A
09-DOUBLE ROOM-02	NO (-74%)	NO
09-ADA KING ROOM-03	NO (-62.1%)	NO
09-ADA KING ROOM BATHROOM-03	NO (-81.6%)	NO
09-ADA KING ROOM-02	NO (-75.8%)	NO
09-ADA KING ROOM BATHROOM-02	N/A	N/A
09-CORRIDOR-05	N/A	N/A
09-ADA KING ROOM BATHROOM-01	N/A	N/A
09-ADA KING ROOM-01	NO (-49.4%)	NO
10-DOUBLE ROOM-03	NO (-52%)	NO
10-DOUBLE ROOM BATHROOM-03	N/A	N/A
10-KING ROOM-06	NO (-43.4%)	NO
10-KING ROOM BATHROOM-06	N/A	N/A
10-KING ROOM-05	NO (-62.3%)	NO
10-KING ROOM BATHROOM-05	N/A	N/A
10-DOUBLE ROOM-04	NO (-68.4%)	NO
10-DOUBLE ROOM BATHROOM-04	N/A	N/A
10-KING ROOM BATHROOM-08	N/A	N/A
10-KING ROOM-08	NO (-74.6%)	NO
10-KING ROOM-07	NO (-74.5%)	NO
10-KING ROOM BATHROOM-07	N/A	N/A
10-CIRCULATION LOBBY	N/A	N/A
10-KING ROOM BATHROOM-04	N/A	N/A
10-KING ROOM-04	NO (-74.7%)	NO
10-KING ROOM BATHROOM-03	N/A	N/A
10-KING ROOM-03	NO (-42.9%)	NO
10-KING ROOM-02	NO (-41.3%)	NO
10-KING ROOM BATHROOM-02	N/A	N/A
10-KING ROOM BATHROOM-01	N/A	N/A
10-KING ROOM-01	NO (-42.4%)	NO
10-DOUBLE ROOM-01	NO (-25.4%)	NO
10-DOUBLE ROOM BATHROOM-02	N/A	N/A
10-DOUBLE ROOM BATHROOM-01	N/A	N/A
10-DOUBLE ROOM-02	NO (-71.6%)	NO
10-ADA KING ROOM-03	NO (-61.2%)	NO
10-ADA KING ROOM BATHROOM-03	NO (-80.4%)	NO
10-ADA KING ROOM-02	NO (-73.8%)	NO
10-ADA KING ROOM BATHROOM-02	N/A	N/A
10-CORRIDOR-05	N/A	N/A
10-ADA KING ROOM BATHROOM-01	N/A	N/A
10-ADA KING ROOM-01	NO (-48.9%)	NO
11-DOUBLE ROOM-03	NO (-51.9%)	NO
11-DOUBLE ROOM BATHROOM-03	N/A	N/A
11-KING ROOM-06	NO (-43.4%)	NO
11-KING ROOM BATHROOM-06	N/A	N/A
11-KING ROOM-05	NO (-62.3%)	NO
11-KING ROOM BATHROOM-05	N/A	N/A
11-DOUBLE ROOM-04	NO (-67.9%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
11-DOUBLE ROOM BATHROOM-04	N/A	N/A
11-KING ROOM BATHROOM-08	N/A	N/A
11-KING ROOM-08	NO (-74.4%)	NO
11-KING ROOM-07	NO (-74.3%)	NO
11-KING ROOM BATHROOM-07	N/A	N/A
11-CIRCULATION LOBBY	N/A	N/A
11-KING ROOM BATHROOM-04	N/A	N/A
11-KING ROOM-04	NO (-74.2%)	NO
11-KING ROOM BATHROOM-03	N/A	N/A
11-KING ROOM-03	NO (-42.9%)	NO
11-KING ROOM-02	NO (-41.3%)	NO
11-KING ROOM BATHROOM-02	N/A	N/A
11-KING ROOM BATHROOM-01	N/A	N/A
11-KING ROOM-01	NO (-42.4%)	NO
11-DOUBLE ROOM-01	NO (-25.4%)	NO
11-DOUBLE ROOM BATHROOM-02	N/A	N/A
11-DOUBLE ROOM BATHROOM-01	N/A	N/A
11-DOUBLE ROOM-02	NO (-70.6%)	NO
11-ADA KING ROOM-03	NO (-60.7%)	NO
11-ADA KING ROOM BATHROOM-03	NO (-79.3%)	NO
11-ADA KING ROOM-02	NO (-73%)	NO
11-ADA KING ROOM BATHROOM-02	N/A	N/A
11-CORRIDOR-05	N/A	N/A
11-ADA KING ROOM BATHROOM-01	N/A	N/A
11-ADA KING ROOM-01	NO (-48.7%)	NO
12-DOUBLE ROOM-03	NO (-51.9%)	NO
12-DOUBLE ROOM BATHROOM-03	N/A	N/A
12-KING ROOM-06	NO (-43.4%)	NO
12-KING ROOM BATHROOM-06	N/A	N/A
12-KING ROOM-05	NO (-62.3%)	NO
12-KING ROOM BATHROOM-05	N/A	N/A
12-DOUBLE ROOM-04	NO (-67.6%)	NO
12-DOUBLE ROOM BATHROOM-04	N/A	N/A
12-KING ROOM BATHROOM-08	N/A	N/A
12-KING ROOM-08	NO (-74%)	NO
12-KING ROOM-07	NO (-73.8%)	NO
12-KING ROOM BATHROOM-07	N/A	N/A
12-CIRCULATION LOBBY	N/A	N/A
12-KING ROOM BATHROOM-04	N/A	N/A
12-KING ROOM-04	NO (-73.2%)	NO
12-KING ROOM BATHROOM-03	N/A	N/A
12-KING ROOM-03	NO (-42.9%)	NO
12-KING ROOM-02	NO (-41.3%)	NO
12-KING ROOM BATHROOM-02	N/A	N/A
12-KING ROOM BATHROOM-01	N/A	N/A
12-KING ROOM-01	NO (-42.4%)	NO
12-DOUBLE ROOM-01	NO (-25.4%)	NO
12-DOUBLE ROOM BATHROOM-02	N/A	N/A
12-DOUBLE ROOM BATHROOM-01	NO (-100%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
12-DOUBLE ROOM-02	NO (-69.9%)	NO
12-ADA KING ROOM-03	NO (-60.5%)	NO
12-ADA KING ROOM BATHROOM-03	NO (-79.2%)	NO
12-ADA KING ROOM-02	NO (-71.8%)	NO
12-ADA KING ROOM BATHROOM-02	N/A	N/A
12-CORRIDOR-05	N/A	N/A
12-ADA KING ROOM BATHROOM-01	N/A	N/A
12-ADA KING ROOM-01	NO (-48.3%)	NO
13-DOUBLE ROOM-03	NO (-51.9%)	NO
13-DOUBLE ROOM BATHROOM-03	N/A	N/A
13-KING ROOM-06	NO (-43.4%)	NO
13-KING ROOM BATHROOM-06	N/A	N/A
13-KING ROOM-05	NO (-62.3%)	NO
13-KING ROOM BATHROOM-05	N/A	N/A
13-DOUBLE ROOM-04	NO (-67.2%)	NO
13-DOUBLE ROOM BATHROOM-04	N/A	N/A
13-KING ROOM BATHROOM-08	N/A	N/A
13-KING ROOM-08	NO (-73.4%)	NO
13-KING ROOM-07	NO (-72.8%)	NO
13-KING ROOM BATHROOM-07	N/A	N/A
13-CIRCULATION LOBBY	N/A	N/A
13-KING ROOM BATHROOM-04	N/A	N/A
13-KING ROOM-04	NO (-72%)	NO
13-KING ROOM BATHROOM-03	N/A	N/A
13-KING ROOM-03	NO (-42.9%)	NO
13-KING ROOM-02	NO (-41.3%)	NO
13-KING ROOM BATHROOM-02	N/A	N/A
13-KING ROOM BATHROOM-01	N/A	N/A
13-KING ROOM-01	NO (-42.4%)	NO
13-DOUBLE ROOM-01	NO (-25.4%)	NO
13-DOUBLE ROOM BATHROOM-02	N/A	N/A
13-DOUBLE ROOM BATHROOM-01	N/A	N/A
13-DOUBLE ROOM-02	NO (-68.8%)	NO
13-ADA KING ROOM-03	NO (-60.5%)	NO
13-ADA KING ROOM BATHROOM-03	NO (-79%)	NO
13-ADA KING ROOM-02	NO (-71.1%)	NO
13-ADA KING ROOM BATHROOM-02	N/A	N/A
13-CORRIDOR-05	N/A	N/A
13-ADA KING ROOM BATHROOM-01	N/A	N/A
13-ADA KING ROOM-01	NO (-48.2%)	NO
14-DOUBLE ROOM-03	NO (-51.8%)	NO
14-DOUBLE ROOM BATHROOM-03	N/A	N/A
14-KING ROOM-06	NO (-43.4%)	NO
14-KING ROOM BATHROOM-06	N/A	N/A
14-KING ROOM-05	NO (-62.2%)	NO
14-KING ROOM BATHROOM-05	NO (-99.9%)	NO
14-DOUBLE ROOM-04	NO (-65.7%)	NO
14-DOUBLE ROOM BATHROOM-04	N/A	N/A
14-KING ROOM BATHROOM-08	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
14-KING ROOM-08	NO (-72.2%)	NO
14-KING ROOM-07	NO (-72.8%)	NO
14-KING ROOM BATHROOM-07	N/A	N/A
14-CIRCULATION LOBBY	NO (-100%)	NO
14-KING ROOM BATHROOM-04	N/A	N/A
14-KING ROOM-04	NO (-71.8%)	NO
14-KING ROOM BATHROOM-03	N/A	N/A
14-KING ROOM-03	NO (-42.9%)	NO
14-KING ROOM-02	NO (-41.3%)	NO
14-KING ROOM BATHROOM-02	N/A	N/A
14-KING ROOM BATHROOM-01	N/A	N/A
14-KING ROOM-01	NO (-42.4%)	NO
14-DOUBLE ROOM-01	NO (-25.4%)	NO
14-DOUBLE ROOM BATHROOM-02	NO (-100%)	NO
14-DOUBLE ROOM BATHROOM-01	N/A	N/A
14-DOUBLE ROOM-02	NO (-68.7%)	NO
14-ADA KING ROOM-03	NO (-60.5%)	NO
14-ADA KING ROOM BATHROOM-03	NO (-79%)	NO
14-ADA KING ROOM-02	NO (-70.9%)	NO
14-ADA KING ROOM BATHROOM-02	N/A	N/A
14-CORRIDOR-05	N/A	N/A
14-ADA KING ROOM BATHROOM-01	N/A	N/A
14-ADA KING ROOM-01	NO (-48%)	NO
15-2 BED APARTMENT-01-BEDROOM	NO (-42.8%)	NO
17-2 BED APARTMENT-01-BEDROOM	NO (-42.7%)	NO
16-2 BED APARTMENT-01-BEDROOM	NO (-42.7%)	NO
18-2 BED APARTMENT-01-BEDROOM	NO (-42.6%)	NO
19-2 BED APARTMENT-01-BEDROOM	NO (-42.5%)	NO
20-2 BED APARTMENT-01-BEDROOM	NO (-42.5%)	NO
21-2 BED APARTMENT-01-BEDROOM	NO (-42.4%)	NO
01-RESTURANT RESTROOMS	N/A	N/A
0-LOBBY	N/A	N/A
01-RESTURANT	N/A	N/A
B1 - CIRCULATION	N/A	N/A
02-CORRIDOR-04	N/A	N/A
01-RESTURANT LOUNGE	N/A	N/A
02-CLUB ROOM	N/A	N/A
02-CLUB ROOM	N/A	N/A
02-CLUB ROOM DL	NO (-15.2%)	NO
22-ROOFTOP RESTURANT	N/A	N/A
22-ROOFTOP RESTURANT DL	NO (-5.3%)	NO
22-ROOFTOP BAR/LOBBY DL	NO (-10.8%)	NO
22-ROOFTOP BAR/LOBBY	N/A	N/A
00-LOBBY	N/A	N/A
00-LOBBY DL	YES (+162.9%)	NO

Criterion 4: The performance of the building, as built, should be consistent with the BER

Separate submission

Criterion 5: The necessary provisions for enabling energy-efficient operation of the building should be in place

Separate submission

EPBD (Recast): Consideration of 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
Area [m ²]	16344	16344
External area [m ²]	16144.4	16144.4
Weather	LON	LON
Infiltration [m ³ /hm ² @ 50Pa]	3	3
Average conductance [W/K]	11187.6	8908.31
Average U-value [W/m ² K]	0.69	0.55
Alpha value* [%]	9.84	10

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

Building Use

% Area Building Type

A1/A2 Retail/Financial and Professional services
A3/A4/A5 Restaurants and Cafes/Drinking Est./Takeaways
B1 Offices and Workshop businesses
B2 to B7 General Industrial and Special Industrial Groups
B8 Storage or Distribution
100 C1 Hotels
C2 Residential Inst.: Hospitals and Care Homes
C2 Residential Inst.: Residential schools
C2 Residential Inst.: Universities and colleges
C2A Secure Residential Inst.
Residential spaces
D1 Non-residential Inst.: Community/Day Centre
D1 Non-residential Inst.: Libraries, Museums, and Galleries
D1 Non-residential Inst.: Education
D1 Non-residential Inst.: Primary Health Care Building
D1 Non-residential Inst.: Crown and County Courts
D2 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/m²]

	Actual	Notional
Heating	33.88	23.24
Cooling	5.78	5.74
Auxiliary	27.17	27.97
Lighting	7.65	13.21
Hot water	209.78	211.35
Equipment*	56.06	56.06
TOTAL **	284.26	281.51

* Energy used by equipment does not count towards the total for calculating emissions.

** Total is net of any electrical energy displaced by CHP generators, if applicable.

Energy Production by Technology [kWh/m²]

	Actual	Notional
Photovoltaic systems	0	0
Wind turbines	0	0
CHP generators	0	0
Solar thermal systems	0	0

Energy & CO₂ Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m ²]	172.31	150.47
Primary energy* [kWh/m ²]	418.8	426.65
Total emissions [kg/m ²]	73.2	74.4

* Primary energy is net of any electrical energy displaced by CHP generators, if applicable.

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 SSEFF	Cool SSEER	Heat gen SEFF	Cool gen SEER	
[ST] Fan coil systems, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	127.2	78.2	40.3	6.9	32	0.88	3.15	0.96	4.1
	Notional	84.7	93.7	27.3	6.9	33.1	0.86	3.79	----	----
[ST] Constant volume system (variable fresh air rate), [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	37.6	9	11.8	1.1	28	0.88	2.25	0.96	4.1
	Notional	111	1.8	35.8	0.1	22.7	0.86	3.79	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	0	0	0	0	0.1	0.85	0	0.96	0
	Notional	0	0	0	0	0.1	0.86	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

Key Features

The BCO can give particular attention to items with specifications that are better than typically expected.

Building fabric

Element	U _{i-Typ}	U _{i-Min}	Surface where the minimum value occurs*
Wall	0.23	0.15	B1000001:Surf[1]
Floor	0.2	0.15	B1000000:Surf[0]
Roof	0.15	0.11	RM000007:Surf[1]
Windows, roof windows, and rooflights	1.5	0.8	RM00005B:Surf[1]
Personnel doors	1.5	-	No Personnel doors in building
Vehicle access & similar large doors	1.5	-	No Vehicle access doors in building
High usage entrance doors	1.5	-	No High usage entrance doors in building
U _{i-Typ} = Typical individual element U-values [W/(m²K)]		U _{i-Min} = Minimum individual element U-values [W/(m²K)]	
* There might be more than one surface where the minimum U-value occurs.			

Air Permeability	Typical value	This building
m³/(h.m²) at 50 Pa	5	3

Project name

Experience incl warmington**As designed****Date:** Wed Aug 12 14:42:07 2015**Administrative information****Building Details****Address:** Address 1, City, Postcode**Certification tool****Calculation engine:** Apache**Calculation engine version:** 7.0.2**Interface to calculation engine:** IES Virtual Environment**Interface to calculation engine version:** 7.0.2**BRUKL compliance check version:** v5.2.b.1**Owner Details****Name:** Name**Telephone number:** Phone**Address:** Street Address, City, Postcode**Certifier details****Name:** Name**Telephone number:** Phone**Address:** Street Address, City, Postcode**Criterion 1: The calculated CO₂ emission rate for the building should not exceed the target**

1.1	CO ₂ emission rate from the notional building, kgCO ₂ /m ² .annum	46.5
1.2	Target CO ₂ emission rate (TER), kgCO ₂ /m ² .annum	46.5
1.3	Building CO ₂ emission rate (BER), kgCO ₂ /m ² .annum	42.1
1.4	Are emissions from the building less than or equal to the target?	BER ≤ TER
1.5	Are as built details the same as used in the BER calculations?	Separate submission

Criterion 2: The performance of the building fabric and the building services should achieve reasonable overall standards of energy efficiency

Values which do not meet standards in the 2013 Non-Domestic Building Services Compliance Guide are displayed in red.

2.a Building fabric

Element	U _a -Limit	U _a -Calc	U _i -Calc	Surface where the maximum value occurs*
Wall**	0.35	0.34	2.53	RM000011:Surf[2]
Floor	0.25	0.15	0.22	RM000010:Surf[0]
Roof	0.25	0.11	0.11	RM000001:Surf[1]
Windows***, roof windows, and rooflights	2.2	1.36	5.57	RM000011:Surf[1]
Personnel doors	2.2	-	-	No Personnel doors in building
Vehicle access & similar large doors	1.5	-	-	No Vehicle access doors in building
High usage entrance doors	3.5	-	-	No High usage entrance doors in building
U _a -Limit = Limiting area-weighted average U-values [W/(m ² K)] U _a -Calc = Calculated area-weighted average U-values [W/(m ² K)] U _i -Calc = Calculated maximum individual element U-values [W/(m ² K)] * There might be more than one surface where the maximum U-value occurs. ** 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. N.B.: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.				

Air Permeability	Worst acceptable standard	This building
m ³ /(h.m ²) at 50 Pa	10	3

2.b Building services

The standard values listed below are minimum values for efficiencies and maximum values for SFPs. Refer to the Non-Domestic Building Services Compliance Guide for details.

Whole building lighting automatic monitoring & targeting with alarms for out-of-range values	YES
Whole building electric power factor achieved by power factor correction	>0.95

1- FCU

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.95	2.5	0	1.55	0.75
Standard value	0.91*	2.55	N/A	1.6	0.65
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
* Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

2- NV

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.95	-	0.18	0	-
Standard value	0.91*	N/A	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 gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

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

Local mechanical ventilation, exhaust, and terminal units

ID	System type in Non-domestic Building Services Compliance Guide
A	Local supply or extract ventilation units serving a single area
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 supply and extract ventilation units serving a single room or zone with heating and heat recovery
E	Local supply and extract ventilation system serving a single area with heating and heat recovery
F	Other local ventilation units
G	Fan-assisted terminal VAV unit
H	Fan coil units
I	Zonal extract system where the fan is remote from the zone with grease filter

Zone name	SFP [W/(l/s)]										HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1			
Cash room	-	-	-	0.4	-	-	-	1.6	-	-	-	N/A
Break room	-	-	-	0.4	-	-	-	1.6	-	-	-	N/A
Cinema Foyer and WC's	-	-	-	0.4	-	-	-	1.6	-	-	-	N/A
Cinema	-	-	-	0.4	-	-	-	1.6	-	-	-	N/A
Ticket window	-	-	-	0.4	-	-	-	1.6	-	-	-	N/A
Retail Office	-	-	-	0.4	-	-	-	1.6	-	-	-	N/A
Roofwalk reception	-	-	-	0.4	-	-	-	1.6	-	-	-	N/A
Toilet	-	-	-	1	-	-	-	1.6	-	-	-	N/A
Toilet	-	-	-	1	-	-	-	1.6	-	-	-	N/A
Chaging room	-	-	-	1.5	-	-	-	1.6	-	-	-	N/A
Changing room	-	-	-	1.5	-	-	-	1.6	-	-	-	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	1.9	1.6	0.5	1.1	0.5	1	Zone	Standard	
Ticket windows	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
Ticketing Office	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
Meeting room	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
Museum	-	-	-	1.5	-	-	-	1.6	-	-	N/A	
Shirt Printing	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
Mega Store DL	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
Mega Store DL1	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
Museum DL	-	-	-	1.5	-	-	-	1.6	-	-	N/A	
Museum	-	-	-	1.5	-	-	-	1.6	-	-	N/A	
Museum	-	-	-	1.5	-	-	-	1.6	-	-	N/A	
Museum	-	-	-	1.5	-	-	-	1.6	-	-	N/A	
Museum	-	-	-	1.5	-	-	-	1.6	-	-	N/A	
Museum	-	-	-	1.5	-	-	-	1.6	-	-	N/A	
Museum	-	-	-	1.5	-	-	-	1.6	-	-	N/A	
Museum	-	-	-	1.5	-	-	-	1.6	-	-	N/A	
Museum	-	-	-	1.5	-	-	-	1.6	-	-	N/A	
Museum	-	-	-	1.5	-	-	-	1.6	-	-	N/A	
Museum	-	-	-	1.5	-	-	-	1.6	-	-	N/A	
Museum	-	-	-	1.5	-	-	-	1.6	-	-	N/A	
Museum	-	-	-	1.5	-	-	-	1.6	-	-	N/A	
Museum	-	-	-	1.5	-	-	-	1.6	-	-	N/A	
Museum	-	-	-	1.5	-	-	-	1.6	-	-	N/A	
Toilet	-	-	-	1	-	-	-	1.6	-	-	N/A	
Toilets	-	-	-	1	-	-	-	1.6	-	-	N/A	
Changing	-	-	-	1.5	-	-	-	1.6	-	-	N/A	
Changing	-	-	-	1.5	-	-	-	1.6	-	-	N/A	
Mega Store	-	-	-	0.4	-	-	-	1.6	-	-	N/A	
circulation	-	-	-	1.5	-	-	-	1.6	-	-	N/A	
museum	-	-	-	1.5	-	-	-	1.6	-	-	N/A	
cafe	-	-	-	1.5	-	-	-	1.6	-	-	N/A	

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
Standard value		60	60	22	
Cash room		75	-	-	388
Storage		75	-	-	18
Storage		75	-	-	9
Break room		75	-	-	671
Storage		75	-	-	188
Cinema Foyer and WC's		-	75	65	967
Plant		75	-	-	586
Cinema		-	75	-	1215
Ticket window		75	-	-	198
Corridor		-	75	-	80
Retail Office		75	-	-	508
Storage		75	-	-	30
Corridor		-	75	-	264

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
Roofwalk reception		-	75	65	234
Toilet		-	75	-	51
Toilet		-	75	-	60
Chaging room		-	75	-	76
Changing room		-	75	-	76
Roofwalk klt		75	-	-	121
Ticket windows		75	-	-	800
Ticketing Office		75	-	-	1594
Stairs		-	75	-	105
Meeting room		75	-	-	452
Museum		-	75	65	890
Shirt Printing		75	-	-	652
Mega Store DL		-	75	65	2565
Mega Store DL1		-	75	65	2171
Museum DL		-	75	65	456
Museum		-	75	65	134
Museum		-	75	65	123
Museum		-	75	65	162
Museum		-	75	65	129
Museum		-	75	65	145
Museum		-	75	65	200
Museum		-	75	65	187
Museum		-	75	65	259
Museum		-	75	65	209
Museum		-	75	65	192
Toilet		-	75	-	114
Toilets		-	75	-	120
Changing		-	75	-	59
Changing		-	75	-	61
Mega Store		-	75	65	16541
circulation		-	75	-	771
museum		-	75	15	736
cafe		-	75	-	902

Criterion 3: The spaces in the building should have appropriate passive control measures to limit solar gains

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Cash room	N/A	N/A
Break room	N/A	N/A
Cinema Foyer and WC's	N/A	N/A
Cinema	N/A	N/A
Ticket window	N/A	N/A
Retail Office	N/A	N/A
Roofwalk reception	NO (-51.9%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Toilet	N/A	N/A
Toilet	N/A	N/A
Chaging room	N/A	N/A
Changing room	N/A	N/A
Ticket windows	NO (-57.3%)	NO
Ticketing Office	NO (-62.6%)	NO
Meeting room	NO (-81.9%)	NO
Museum	NO (-69.2%)	NO
Shirt Printing	N/A	N/A
Mega Store DL	NO (-35.1%)	NO
Mega Store DL1	NO (-24%)	NO
Museum DL	NO (-18.7%)	NO
Museum	N/A	N/A
Museum	YES (+12.9%)	NO
Museum	N/A	N/A
Museum	N/A	N/A
Museum	YES (+9.7%)	NO
Museum	N/A	N/A
Museum	NO (-24.4%)	NO
Museum	NO (-97.8%)	NO
Museum	NO (-26.8%)	NO
Museum	N/A	N/A
Toilet	N/A	N/A
Toilets	N/A	N/A
Changing	N/A	N/A
Changing	N/A	N/A
Mega Store	N/A	N/A
circulation	YES (+109%)	NO
museum	N/A	N/A
cafe	NO (-57.6%)	NO

Criterion 4: The performance of the building, as built, should be consistent with the BER

Separate submission

Criterion 5: The necessary provisions for enabling energy-efficient operation of the building should be in place

Separate submission

EPBD (Recast): Consideration of alternative energy systems

Were alternative energy systems considered and analysed as part of the design process?	YES
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
Area [m ²]	4461.8	4461.8
External area [m ²]	9882.1	9882.1
Weather	LON	LON
Infiltration [m ³ /hm ² @ 50Pa]	3	3
Average conductance [W/K]	2838.62	2963.06
Average U-value [W/m ² K]	0.29	0.3
Alpha value* [%]	10.01	10

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

Building Use

% Area	Building Type
46	A1/A2 Retail/Financial and Professional services A3/A4/A5 Restaurants and Cafes/Drinking Est./Takeaways
1	B1 Offices and Workshop businesses B2 to B7 General Industrial and Special Industrial Groups B8 Storage or Distribution C1 Hotels C2 Residential Inst.: Hospitals and Care Homes C2 Residential Inst.: Residential schools C2 Residential Inst.: Universities and colleges C2A Secure Residential Inst. Residential spaces D1 Non-residential Inst.: Community/Day Centre
48	D1 Non-residential Inst.: Libraries, Museums, and Galleries D1 Non-residential Inst.: Education D1 Non-residential Inst.: Primary Health Care Building D1 Non-residential Inst.: Crown and County Courts
4	D2 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/m²]

	Actual	Notional
Heating	23.5	18.89
Cooling	5.11	5.89
Auxiliary	21.16	18.87
Lighting	27.06	43.48
Hot water	37.8	33.28
Equipment*	32.56	32.56
TOTAL **	114.62	120.41

* Energy used by equipment does not count towards the total for calculating emissions.

** Total is net of any electrical energy displaced by CHP generators, if applicable.

Energy Production by Technology [kWh/m²]

	Actual	Notional
Photovoltaic systems	0	0
Wind turbines	0	0
CHP generators	0	0
Solar thermal systems	0	0

Energy & CO₂ Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m ²]	133.63	139.02
Primary energy* [kWh/m ²]	245.71	267.09
Total emissions [kg/m ²]	42.1	46.5

* Primary energy is net of any electrical energy displaced by CHP generators, if applicable.

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 SSEFF	Cool SSEER	Heat gen SEFF	Cool gen SEER	
[ST] Fan coil systems, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	69.3	73.5	23.8	5.8	23.3	0.81	3.53	0.95	4.72
	Notional	54.2	91.1	17.5	6.7	21.2	0.86	3.79	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	64.5	0	21.1	0	1.4	0.85	0	0.95	0
	Notional	91.8	0	29.6	0	1	0.86	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

Key Features

The BCO can give particular attention to items with specifications that are better than typically expected.

Building fabric

Element	U _{i-Typ}	U _{i-Min}	Surface where the minimum value occurs*
Wall	0.23	0.2	RM000001:Surf[2]
Floor	0.2	0.15	RM000001:Surf[0]
Roof	0.15	0.11	RM000001:Surf[1]
Windows, roof windows, and rooflights	1.5	0.9	RM000002:Surf[1]
Personnel doors	1.5	-	No Personnel doors in building
Vehicle access & similar large doors	1.5	-	No Vehicle access doors in building
High usage entrance doors	1.5	-	No High usage entrance doors in building
U _{i-Typ} = Typical individual element U-values [W/(m²K)]		U _{i-Min} = Minimum individual element U-values [W/(m²K)]	
* There might be more than one surface where the minimum U-value occurs.			

Air Permeability	Typical value	This building
m³/(h.m²) at 50 Pa	5	3

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