SEVINGTON
INLAND BORDER FACILITY

Department for Environment, Food & Rural Affairs

HM Revenue & Customs

Department for Transport

Energy Statement

March 2025

Client Name:	Department for Transport (DfT), His Majesty's Revenues & Customs (HMRC) & Department for Environment, Food & Rural Affairs (Defra)
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Quality Assurance – Approval Status

This document has been prepared and checked in accordance with
Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015 and BS EN ISO 45001:2018)

Revision	Status	Date	Prepared by	Checked by	Approved by
P01	S3	11/03/2025	[redacted]	[redacted]	[redacted]
C01	A6	21/03/2025	[redacted]	[redacted]	[redacted]

Comments	
P01	Draft issue for comments
C01	Final issue

Revision		Status	
P*nn*	Preliminary (shared; non-contractual)	S1	Coordination
C*nn*	Contractual	S2	Information
		S3	Review & Comment
		S4	Review & Authorise
		S5	Review & Acceptance
		A0, A1, A*n*	Authorised & Accepted (*n*=work stage if applicable)

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Executive Summary

This Energy Statement has been prepared by Waterman Building Services to accompany an application for full planning permission for continuation of the current operation of the Sevington Inland Border Facility located at Sevington, Ashford TN25 6GE.

The Energy Statement is grounded in a comprehensive framework of national policies and regulations designed to promote sustainable development and mitigate the impacts of climate change:

- **Building Regulations Part L (2013)**: As the development was constructed prior to the introduction of Part L 2021, compliance is assessed against Part L 2013, which was the applicable standard at the time of construction. The development adheres to Part L regulations, which aim to limit carbon emissions by ensuring that the Building Emission Rate (BER) does not exceed the Target Emission Rate (TER) as calculated using the National Calculation Methodology (NCM).
- **National Planning Policy Framework (NPPF)**: The NPPF emphasises climate change mitigation through efficient building design, the integration of renewable energy sources, and the reduction of greenhouse gas emissions. The development aligns with these principles by incorporating both passive and active energy-saving strategies.

The site has been designed to achieve high energy efficiency through a combination of passive design measures and advanced building systems. The strategy prioritises reducing energy demand by enhancing fabric performance, optimising HVAC solutions, and integrating energy-efficient lighting and heating systems.

The design adopts a fabric-first approach, focusing on minimising heat loss by implementing highly efficient U-values for all building elements. The building envelope has been optimised to exceed standard performance where feasible, ensuring improved thermal efficiency, enhanced occupant comfort, and reduced energy demand.

Mechanical Ventilation with Heat Recovery (MVHR) systems have been incorporated to minimise ventilation-related energy losses while maintaining high indoor air quality. Additionally, the HVAC strategy includes a Variable Refrigerant Flow (VRF) system to provide efficient heating and cooling across different areas of the development. In the office spaces, a combination of VRF systems and natural ventilation ensures thermal comfort while optimising energy use. Some sections of the site, including inspection bays and storage areas, are equipped with Air Handling Units (AHUs) with heat recovery to further improve efficiency.

Heating across the site is entirely electric, with Air Source Heat Pumps (ASHPs) providing space heating and hot water where applicable. In corridors and security cabins, fixed electric oil heaters are used as a supplementary heating solution.

To enhance energy efficiency, all lighting across the development consists of high-performance LED systems. The lighting design maximizes efficacy while reducing overall consumption. Occupancy sensors and Passive Infrared (PIR) detectors have been installed in office and circulation areas to minimise unnecessary energy use.

Domestic hot water for office buildings is provided by fully electric under-sink water heaters, ensuring localized and efficient water heating. In larger operational areas, unvented hot water cylinders with electric heating have been implemented to meet demand effectively.

The building has been designed to operate as an all-electric, highly efficient facility, integrating advanced energy-saving measures to support sustainability and long-term operational efficiency.

1. INTRODUCTION

This Energy Statement has been prepared by Waterman Building Services to accompany an application for full planning permission for the Sevington Inland Border Facility located at Sevington, Ashford TN25 6GE.

1.1 Development Description

Prior to the exit of the United Kingdom (UK) from the European Union (EU) on the 31 December 2020, the Town and Country Planning (Border Facilities and Infrastructure) (EU Exit) (England) Special Development Order 2020[1] was made by the Secretary of State in accordance with Schedule 59 of the Town and Country Planning Act 1990. The application for the Special Development Order (SDO) for the Site was submitted on 20 November 2020, pursuant to Article 4(1)(a) of the overarching SDO (statutory instrument) and granted on 01 December 2020.

Subsequent permission was granted by the Ministry of Housing, Communities and Local Government (and then the Department for Levelling Up, Housing and Communities) on 23rd December 2020, 24th November 2021 and 28th April 2022, to account for evolving operational requirements pursuant to the SDO. The temporary permission is set to expire on 31 December 2025.

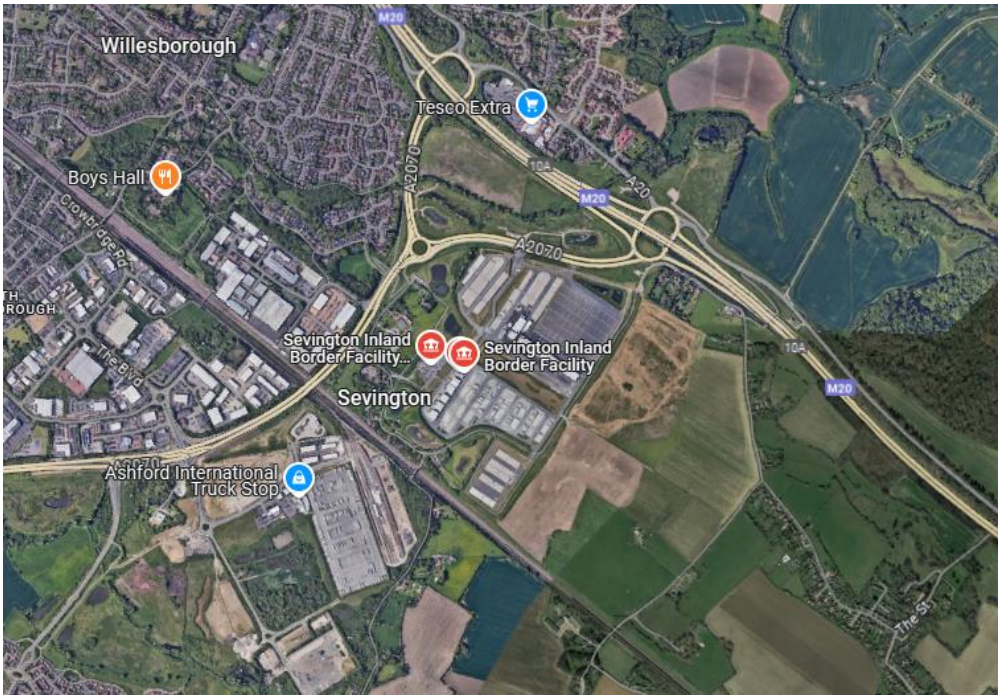
The planning description[2] for the existing facility is as follows:

"The temporary use of land until 31 December 2025, operating 24 hours a day 7 days a week, for an Inland Border Facility for use in different phases by Department for Transport, HM Revenue & Customs / Border Force, Department for Environment, Food and Rural Affairs, Port Health Authority (PHA) and Animal and Plant Health Agency (APHA), Department for Business, Energy and Industrial Strategy for border readiness, CTC, ATA Carnet, SPS, CITES and other customs related checks, and market surveillance activities, and ancillary Covid19 testing and facilities. The proposed development includes the laying out of up to 855 Goods Vehicle parking spaces, capacity for 260 Goods Vehicles in 42 entry lanes, 357 staff car parking spaces, formation of a new permanent access (main access to the M20 junction 10a link road) and an emergency access / small vehicle ejection point to the north, access off Church Road into the staff car park, emergency access points off Highfield Lane, diversions and extinguishments to PRoWs, the erection of buildings and structures for border processing purposes within the development plot area of up to 34,500m^2, (HMRC, BCP and FM plots) to a maximum height of 8.5m, provision of 24 (19 permanent and 5 reserved) refrigerated semi-trailers covering an area of approximately 870m^2 associated with the Defra facility, water tank and pump house for sprinkler system, FM cabins, additional storage and additional Defra ancillary infrastructure, security fencing and noise attenuation bunds and fences to a combined maximum height of 5m, CCTV columns to a height of 8m, lighting columns to a maximum height of 12m, drainage, including the installation of surface mounted attenuation storage tanks and all associated engineering works, Site preparation works and extensive hard and soft landscape works. Approval is also sought for additional Site wide ancillary infrastructure covering a maximum development area of 500m^2, (including back-up generators, marshal gate cabin and emergency exit, GRP Critical Load MCCB Chamber and GRP Busbar Chamber) and for land levelling, construction of bunds and landscaping associated with the creation of biodiversity enhancements on the land east of Highfield Lane."

[1] Town and Country Planning (Border Facilities and Infrastructure) (EU Exit) (England) Special Development Order 2020 (2020/928). Available at: https://www.legislation.gov.uk/uksi/2020/928/contents/made (accessed 21 January 2025).

[2] Department for Levelling Up, Housing & Communities letter titled *"The Town and Country Planning (Border Facilities and Infrastructure) (EU Exit) (England) Special Development Order 2020 ("the Order")"* dated 28 April 2022.

Figure 1: Site Plan



Development Description

The development description is as follow:

"Retention of the existing buildings, Goods Vehicle parking spaces, entry lanes, refrigerated semi-trailers, staff car parking spaces, access, site infrastructure, utilities, hardstanding, landscaping and ancillary facilities and associated works; and ongoing use of the site for an Inland Border Facility and Border Control Post, operating 24 hours per day, seven days per week."

The Development comprises of the following buildings:

Table 1: Development Buildings

Building	QTY
3-Bays Offices	5
4-Bays Offices	2
10-Bays Offices	3
HMRC Inspection Sheds	5
Welfare units	3
DEFRA Offices	4
DEFRA Inspection Sheds	5

2. KEY POLICIES AND LEGISLATIONS

This Energy Statement responds to the broader set of national, and regional policies outlined below.

2.1 Building Regulations

The Development will need to comply with Building Regulations AD Part L: Vol 2 England and Wales 2013. These regulations (Conservation of fuel and power) focus on limiting carbon dioxide emissions and require that the Building Emission Rate (BER) must not exceed the Target Emissions Rate (TER), as set through the National Calculation Methodology (NCM).

As the development was constructed prior to the introduction of Part L 2021, compliance is assessed against Part L 2013, which was the applicable standard at the time of construction.

2.2 National Planning Policy Framework (NPPF)

The Government has set out a planning policy framework guidance in the National Planning Policy Framework (NPPF) (Dec 2024), in which planning authorities can prepare and apply their development plans. Fundamental to this guidance is the requirement to meet sustainable development objectives.

The NPPF covers a wide range of planning issues from promoting sustainable transport to facilitating the sustainable use of minerals. Climate change is covered in section 14 'Meeting the challenge of climate change, flooding and coastal change'. In summary the framework advises:

"Plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating from rising temperatures. Policies should support appropriate measures to ensure the future resilience of communities and infrastructure to climate change impacts, such as providing space for physical protection measures, or making provision for the possible future relocation of vulnerable development and infrastructure."

Refer to: National Planning Policy Framework (2024) for further details.

2.3 National Calculation Methodology (NCM)

The building has been modelled using IES VE 2024 software.The energy consumption values illustrated within this report are generated from the approved software applying the National Calculation Methodology[3] and is not a prediction of the actual energy consumption. The methodology was used for the calculation of regulated energy, such as space heating and domestic hot water consumption. NCM results for unregulated energy are also identified for information.

Emissions within this report are based on the following CO_2 emission rates outlined in Table 2 below and as detailed within SAP version 10.2.

Table 2: CO_2 Emissions Factors

Fuel	CO2 Emission Factors (kgCO2/kWh)
Natural Gas	0.210
Grid Electricity	0.111 - 0.163 (Variation across the year)
Grid Displaced Electricity	0.092 - 0.197 (Variation across the year)

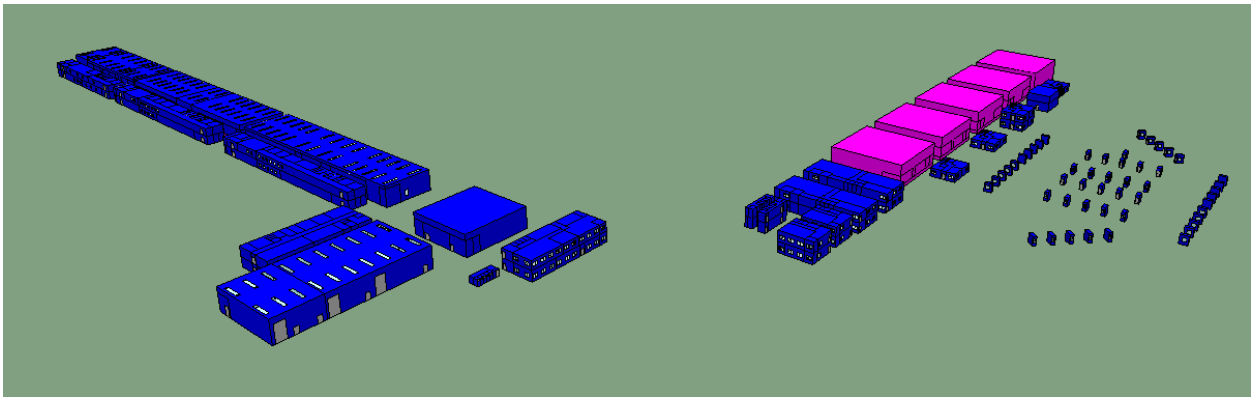
[3] NCM_Modelling_Guide_2021_Edition_England (uk-ncm.org.uk)

3. Methodology

A site visit was conducted on 6th January 2025 to inspect systems and equipment on-site. During the visit, drawings were scanned, followed by the receipt of additional drawings, mechanical system specifications, and other relevant information. This data was used to inform the energy model. Where the information provided was incomplete or inaccurate, Part L 2013 default values and EPC conventions were applied.

For the energy assessment, AM11 approved software (IESVE 2024) was used to model the development The energy consumption values illustrated within this report are generated using the National Calculation Methodology and are not a prediction of actual energy consumption. This methodology is used for the calculation of regulation energy, such as space heating and domestic hot water consumption. This development has been simulated under the Approved Document L 2013 under the London Weather file.

Figure 2: 3D Image of the model



Source: IES VE 2024

4. Energy Efficient Design

4.1 Passive Design Measures

The building design targets highly efficient U-values, minimising heat loss. Since these are likely fixed, passive design measures like optimised solar gain, airtight construction, and shading are recommended to enhance efficiency.

4.1.1 Enhanced U-values

U-values play a key role in reducing heat loss, leading to energy savings, improved comfort, and a more sustainable environment. For the current Development, enhanced U-values have been proposed based on building usage, exceeding the recommended values for new constructions where feasible.

The following table outlines the current fabric performance.

Table 3: Fabric Thermal Performance

Fabric Performance			
Element	**Notional Building Regulations Part L 2013**	**HMRC Buildings**	**Defra Buildings**
Air Tightness	10 $m^3/hr/m^2$	3 $m^3/hr/m^2$	3 $m^3/hr/m^2$
External Wall	0.35 W/m^2k	0.24 W/m^2k	0.18 W/m^2k
Exposed Floor	0.25 W/m^2k	0.19 W/m^2k	0.25 W/m^2k
Roof	0.25 W/m^2k	0.16 W/m^2k	0.17 W/m^2k
Windows	2.2 W/m^2k	1.12 W/m^2k	1.3 W/m^2k
Roof lights	2.2 W/m^2k	1.6 W/m^2k	1.6 W/m^2k
Doors	2.2 W/m^2k	2.2 W/m^2k	2.2 W/m^2k
Glazing G-Value	N/A	0.41	0.41
Glazing LT	N/A	69%	69%

As can be seen in the previous table, significant improvements have been made over the requirements of the Building Regulations to minimise demand as far as practical within the design. Elemental performance is in line or in excess of net-zero performance standards.

4.1.2 HVAC systems

The site consists of office buildings, hangars for inspection and detention (customs), and welfare, in addition to sheds used for racking or drying.

As the site is a mix of office and industrial-type inspection sheds, the primary energy demands are lighting, auxiliary ventilation, and heating.

An all-electric heating system has been implemented. The heating, ventilation, and air conditioning (HVAC) strategy for the development includes a Variable Refrigerant Flow (VRF) system for heating and cooling, combined with natural ventilation for the office areas. Two of the ten bays in the HMRC offices are equipped with mechanical ventilation with heat recovery (MVHR) to enhance thermal efficiency.

Inspection bays and loading areas in the Defra sheds are served by extraction fans designed to remove vehicle exhaust fumes. All inspection rooms, offices, and storage areas are equipped with Air Handling Units (AHUs) that provide mechanical ventilation with heat recovery and are connected to an Air Source Heat Pump (ASHP) system for both heating and cooling.

Heating in corridors and security cabins is provided by fixed full-electric oil heaters.

During the site visit, it was noted that each building has various system types, which are detailed in the BRUKL report in Appendix A.

4.1.3 Lighting

Energy-efficient LED lamps are used throughout the development. To further enhance lighting efficacy and improve overall energy performance, all areas are equipped with LEDs providing 100 lm/W and a Light Output Ratio of 1.00.

In some areas, lighting with 140 lm/W is installed; however, as this was not clearly documented across all drawings, a conservative assumption of 100 lm/W has been applied to areas where it has not been documented, accounting for the worst-case scenario. The DEFRA sheds have lighting with an efficacy of 145 lm/W in lobbies, inspection bays, and offices, and 133 lm/W in WCs and washrooms.

All offices and circulation areas are fitted with PIR (Passive Infrared) detectors and occupancy sensors to enable automatic on/off control, further reducing unnecessary energy consumption and improving overall efficiency.

4.1.4 Hot Water System

Domestic hot water for office buildings is provided by fully electric under-sink heaters with small storage capacities ranging from 7 to 15 litres.

DEFRA sheds are equipped with fully electric, unvented hot water cylinders with storage.

5. RENEWABLE ENERGY

The use of energy conversion technologies using renewable energy have been reviewed and summarised below. The main technologies available for on-site renewable energy generation are:

- Biomass
- Ground Source Heat Pumps
- Air Source Heat Pumps
- Photovoltaic Panels
- Solar Thermal Hot Water Generation
- Wind

5.1 Low and Carbon Technology

Based on this preliminary evaluation, the table below provides a summary of the low carbon technologies assessed for the development

Table 4: Low & Zero Carbon Technologies considered

Technology	Feasibility*			Comments
	H	M	L	
Biomass			✓	Not suitable for the site on grounds of issues relating to high levels of NOx and particulate matter generated from combusting biomass fuels.
Ground Source heat pumps			✓	Ground source heat pumps extract heat from the ground and convert it to low grade heat for space heating and hot water. Traditional ground source heat pumps are not feasible for this development due to ground conditions incl underground transport. Investigations were made into the possibility of utilizing GSHPs within the building piles, as below
GSHP – Hyper Piles			✓	This cutting-edge technique permits some seasonal storage and is thought to be more efficient than ASHP. A smaller amount of plant equipment on the roof makes more room for PVs. However, there is a considerable risk associated with procurement as there is only one manufacturer. The system may not meet the heating/cooling demand, which would require additional supplementary plant. This was not practical because the plan calls for larger piles, which could complicate shipment and groundwork. The cost is also much higher, and the implementation is very complex.
Air Source Heat Pumps	✓			Air source heat pumps extract heat from the air and convert it to heat for space heating and hot water. Air source heat pumps have already been implemented across several spaces within the development, providing efficient space heating. They were selected due to their ease of installation and suitability for the site, offering a practical alternative to ground source heat pumps.

Water Source Heat Pump			✓	The distance from any natural water source negates this as an option
Solar Thermal Hot Water		✓		Solar thermal installations are a well-established renewable energy system and can be one of the most cost-effective renewable energy systems available. A solar thermal installation would not be suitable for this development as the DHW is already proposed to be generated by a low carbon source. In addition, the system would be in competition with PV for the space, with PV being a more viable option due to the ability to use the generation for any purpose, not just DHW production
Photovoltaic Panels	✓			It is feasible to install PV panels on the roofs of the office and warehouse buildings, as there are suitable areas available. However, the extent of implementation may be impacted by funding constraints
Wind			✓	The urban environment and the close proximity of other buildings are not favourable conditions for the installation of wind turbines. The uneven air flow caused by surrounding buildings and the potential negative impact on the visual and noise amenity of the area militate against the use of wind turbines for this development.

H – High Feasibility – No obvious restrictions

M – Medium feasibility – Significant issues that need to be addressed

L – Low feasibility – Site unlikely to support technology

6. RESULTS

The table below provide a summary of the results of the carbon emissions of the development against Building Regulations Part L 2013. See Appendix A for full results (BRUKLs).

Table 5: Summary of Results of Carbon Emissions Rate against Building Regulation Part L 2013

The calculated CO2 Emission Rate against the Target CO2 Emission Rate (Kg/co2/m2.annum)	
CO_2 emission rate from the notional building, kgCO_2/m².annum	34.2
Target CO_2 emission rate (TER), kgCO_2/m².annum	34.2
Building CO_2 emission rate (BER), kgCO_2/m².annum	34.2
Compliance with Building Regulations Part L 2013	Yes

7. CONCLUSIONS

Following a review of the relevant National and Local Planning Policies, this Energy Statement assesses the strategy that positively responds to the National relevant energy and sustainability policies.

The energy performance of the Sevington BCP development has been modelled using IES VE 2024 software, following the National Calculation Methodology (NCM). The results demonstrate that the development comply with Building Regulation Part L 2013.

The energy strategy for the Development prioritises efficiency and sustainability through high-performance building fabric, advanced HVAC systems, and low-carbon technologies. Enhanced U-values surpass Building Regulations, reducing heat loss and improving thermal comfort. Heating and cooling are provided via a Variable Refrigerant Flow (VRF) system, complemented by natural ventilation and Mechanical Ventilation with Heat Recovery (MVHR) to optimise energy efficiency. Energy-efficient LED lighting with occupancy sensors further minimises unnecessary consumption. Additionally, fully electric hot water systems and an all-electric heating approach ensure the development aligns with net-zero performance standards, promoting long-term sustainability and reduced energy demand.

Appendices

A. BRUKL Calculation Report

BRUKL Output Document

HM Government

Compliance with England Building Regulations Part L 2013

Project name

Sevington BCP Full Site 0001

As designed

Date: Tue Mar 11 14:35:06 2025

Administrative information

Building Details

Address: Address 1, City, Postcode

Certification tool

Calculation engine: Apache

Calculation engine version: 7.0.27

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 7.0.27

BRUKL compliance check version: v5.6.b.0

Certifier details

Name: Ibrahim Qasim

Telephone number: Phone

Address: Street Address, City, Postcode

Criterion 1: The calculated CO_2 emission rate for the building must not exceed the target

CO_2 emission rate from the notional building, $kgCO_2/m^2.annum$	34.2
Target CO_2 emission rate (TER), $kgCO_2/m^2.annum$	34.2
Building CO_2 emission rate (BER), $kgCO_2/m^2.annum$	34.2
Are emissions from the building less than or equal to the target?	BER =< TER
Are as built details the same as used in the BER calculations?	Separate submission

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

Values which do not achieve the standards in the Non-Domestic Building Services Compliance Guide and Part L are displayed in red.

Building fabric

Element	$U_{a\text{-}Limit}$	$U_{a\text{-}Calc}$	$U_{i\text{-}Calc}$	Surface where the maximum value occurs*
Wall**	0.35	0.21	0.26	00000027:Surf[0]
Floor	0.25	0.23	0.25	FF00001D:Surf[0]
Roof	0.25	0.17	0.18	SC000000:Surf[1]
Windows***, roof windows, and rooflights	2.2	1.33	2	SH000056:Surf[0]
Personnel doors	2.2	2.01	2.2	SH000001:Surf[7]
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

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

* 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

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	NO
Whole building electric power factor achieved by power factor correction	<0.9

1- VRF with NV - 3 Bays

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4.1	7.2	0	-	0.65
Standard value	2.5*	2.6	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.					

2- Electric Panels - All

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	1	-	0.2	-	-
Standard value	N/A	N/A	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

3- VRF- 10 Bays

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4.1	6.9	0	-	0.65
Standard value	2.5*	2.6	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.					

4- VRF with NV - 4 Bays

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4	6.9	0	-	0.65
Standard value	2.5*	2.6	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.					

5- Office 1 - System 5

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4.6	3.82	0	-	0.9
Standard value	2.5*	2.6	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.					

6- Office 1 - System 8

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	2	2.5	0	-	0.88
Standard value	2.5*	2.6	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.					

7- Office 1 - System 7

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4.6	3.82	0	-	0.83
Standard value	2.5*	2.6	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.					

8- Office 1 - System 6

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4.2	3.82	0	-	0.85
Standard value	2.5*	2.6	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.					

9- Office 1 - Electric Panels

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	1	-	0.2	-	-
Standard value	N/A	N/A	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

10- Office 1 - System 1

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4.6	4.14	0	-	0.89
Standard value	2.5*	2.6	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.					

11- Office 1 - System 4

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4	4.06	0	-	0.88
Standard value	2.5*	2.6	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.					

12- Office 1 - System 2

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4.6	3.52	0	-	0.88
Standard value	2.5*	2.6	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.					

13- Office 1 - System 3

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4	4.06	0	-	0.86
Standard value	2.5*	2.6	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.					

14- Office 2 - System 4

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4	3.82	0	-	0.88
Standard value	2.5*	2.6	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.					

15- Office 2 - System 3

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4.6	4.14	0	-	0.85
Standard value	2.5*	2.6	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.					

16- Office 2 - Electric Panels

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	1	-	0.2	-	-
Standard value	N/A	N/A	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

17- Office 2 - System 2

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4.6	3.52	0	-	0.88
Standard value	2.5*	2.6	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.					

18- Office 2 - System 7

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4.2	3.82	0	-	0.83
Standard value	2.5*	2.6	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.					

19- Office 4- Electric Panels

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	1	-	0.2	-	-
Standard value	N/A	N/A	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

20- Office 4 - System 1

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4.6	4.14	0	-	0.81
Standard value	2.5*	2.6	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.					

21- Office 4 - System 2

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4	4.14	0	-	0.81
Standard value	2.5*	2.6	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.

22- AHU - Defra Shed C

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4.2	7.01	0	1.88	0.8
Standard value	2.5*	3.2	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 all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.

^ Limiting SFP may be extended by the amounts specified in the Non-Domestic Building Services Compliance Guide if the system includes additional components as listed in the Guide.

23- AHU - Defra Shed D,E, C2

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4.2	7.01	0	1.64	0.8
Standard value	2.5*	3.2	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 all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.

^ Limiting SFP may be extended by the amounts specified in the Non-Domestic Building Services Compliance Guide if the system includes additional components as listed in the Guide.

24- Office 2 - System 1

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	5.1	4.14	0	-	0.81
Standard value	2.5*	2.6	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.

1- DHW - All

	Water heating efficiency	Storage loss factor [kWh/litre per day]
This building	1	0.005
Standard value	1	N/A

2- Office 1 - DHW

	Water heating efficiency	Storage loss factor [kWh/litre per day]
This building	1	0.056
Standard value	1	N/A

3- Office 2 - DHW

	Water heating efficiency	Storage loss factor [kWh/litre per day]
This building	1	0.056
Standard value	1	N/A

4- Office 4- DHW

	Water heating efficiency	Storage loss factor [kWh/litre per day]
This building	1	0.056
Standard value	1	N/A

5- DHW Defra Shed C

	Water heating efficiency	Storage loss factor [kWh/litre per day]
This building	1	0.065
Standard value	1	N/A

6- DHW Defra Shed D

	Water heating efficiency	Storage loss factor [kWh/litre per day]
This building	1	0.007
Standard value	1	N/A

7- DHW Defra Shed E - Cleaners Store

	Water heating efficiency	Storage loss factor [kWh/litre per day]
This building	1	0.006
Standard value	1	N/A

8- DHW Defra Shed E - Circulation

	Water heating efficiency	Storage loss factor [kWh/litre per day]
This building	1	0.015
Standard value	1	N/A

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		
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1	Zone	Standard
187 Office 1_GF_office 4	-	-	-	1	-	-	-	-	-	-	N/A
188 Office 1_GF_Service	-	-	-	1	-	-	-	-	-	-	N/A
190 Office 1_GF_Meeting Room	-	-	-	2.1	-	-	-	-	-	-	N/A
191 Office 1_GF_office 1	-	-	-	1	-	-	-	-	-	-	N/A
192 Office 1_GF_office 2	-	-	-	1	-	-	-	-	-	-	N/A
194 Office 1_GF_Open Plan Office 3	-	-	-	1.7	-	-	-	-	-	-	N/A
195 Office 1_GF_office 5	-	-	-	1	-	-	-	-	-	-	N/A
204 Office 1_GF_locker room	-	1.1	-	-	-	-	-	-	-	-	N/A
206 Office 1_GF_office 6	-	-	-	1	-	-	-	-	-	-	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
220 Office 1_1F_Meeting Room	-	-	-	1.5	-	-	-	-	-	-	N/A
223 Office 1_1F_Mess Hall	-	-	-	1.5	-	-	-	-	-	-	N/A
225 Office 1_1F_Open Plan Office 1	-	-	-	1.7	-	-	-	-	-	-	N/A
226 Office 1_1F_locker room	-	1.1	-	-	-	-	-	-	-	-	N/A
269 Office 2_GF_Open Plan Office	-	-	-	1.7	-	-	-	-	-	-	N/A
273 Office 2_GF_Office	-	-	-	1	-	-	-	-	-	-	N/A
274 Office 2_GF_Office	-	-	-	1	-	-	-	-	-	-	N/A
278 Office 2_GF_Office	-	-	-	1	-	-	-	-	-	-	N/A
284 Office 2_GF_Kitchen	-	-	-	1	-	-	-	-	-	-	N/A
285 Office 2_GF_Office	-	-	-	1	-	-	-	-	-	-	N/A
293 Office 2_1F_Comms	-	-	-	1.5	-	-	-	-	-	-	N/A
294 Office 2_1F_Office 4	-	-	-	1	-	-	-	-	-	-	N/A
295 Office 2_1F_Office 5	-	-	-	1	-	-	-	-	-	-	N/A
299 Office 2_1F_Open Plan Office	-	-	-	1.7	-	-	-	-	-	-	N/A
300 Office 2_1F_Office 3	-	-	-	1	-	-	-	-	-	-	N/A
302 Office 2_1F_Change Room	-	1	-	-	-	-	-	-	-	-	N/A
309 Office 2_1F_Office 2	-	-	-	1	-	-	-	-	-	-	N/A
315 Office 2_1F_Office 10	-	1	-	-	-	-	-	-	-	-	N/A
317 Office 3_GF_Open Plan Office	-	-	-	1.7	-	-	-	-	-	-	N/A
320 Office 3_GF_Office	-	-	-	1	-	-	-	-	-	-	N/A
322 Office 3_GF_Office	-	-	-	1	-	-	-	-	-	-	N/A
326 Office 3_GF_Office	-	-	-	1	-	-	-	-	-	-	N/A
332 Office 3_GF_Kitchen	-	-	-	1	-	-	-	-	-	-	N/A
333 Office 3_GF_Office	-	-	-	1	-	-	-	-	-	-	N/A
341 Office 3_1F_Comms	-	-	-	1.5	-	-	-	-	-	-	N/A
342 Office 3_1F_Office 4	-	-	-	1	-	-	-	-	-	-	N/A
343 Office 3_1F_Office 5	-	-	-	1	-	-	-	-	-	-	N/A
347 Office 3_1F_Open Plan Office	-	-	-	1.7	-	-	-	-	-	-	N/A
348 Office 3_1F_Office 3	-	-	-	1	-	-	-	-	-	-	N/A
350 Office 3_1F_Change Room	-	1	-	-	-	-	-	-	-	-	N/A
357 Office 3_1F_Office 2	-	-	-	1	-	-	-	-	-	-	N/A
363 Office 3_1F_Office 10	-	1	-	-	-	-	-	-	-	-	N/A
367 Office 4_GF_Office	-	-	-	1	-	-	-	-	-	-	N/A
368 Office 4_GF_Office	-	-	-	1	-	-	-	-	-	-	N/A
370 Office 4_GF_Office	-	-	-	1	-	-	-	-	-	-	N/A
371 Office 4_GF_Office	-	-	-	1	-	-	-	-	-	-	N/A
373 Office 4_GF_Change Room 1	-	1	-	-	-	-	-	-	-	-	N/A
377 Office 4_GF_Change Room 2	-	1	-	-	-	-	-	-	-	-	N/A
379 Office 4_GF_Change Room 3	-	1	-	-	-	-	-	-	-	-	N/A
382 Office 4_GF_Open Plan Office	-	-	-	1.7	-	-	-	-	-	-	N/A
385 Office 4_1F_Office	-	1	-	-	-	-	-	-	-	-	N/A
395 Office 4_1F_Open PLan Office	-	-	-	1.5	-	-	-	-	-	-	N/A
458 Office 3_GF_Office 1	-	-	-	1	-	-	-	-	-	-	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
459 Office 3_GF_Office	-	-	-	1	-	-	-	-	-	-	N/A
461 Office 2_GF_Office 1	-	-	-	1	-	-	-	-	-	-	N/A
462 Office 2_GF_Office	-	-	-	1	-	-	-	-	-	-	N/A
Shed A_Inspection Room	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed A_Inspection Room	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed A_Inspection Room	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed A_Inspection Room	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed A_Inspection Room	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed A_Inspection Room	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed A_Office	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed A_Inspection Room	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed A_Inspection Room	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed A_Inspection Room	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed A_Inspection Room	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed B_Office	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed B_Office	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed B_Service Room	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed B_Office	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed B_Inspection Room	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed B_Inspection Room	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed B_Inspection Room	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed B_Office	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed B_Inspection Room	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed B_Office	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed B_Office	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed D_Inspection Room	-	-	1.1	-	-	-	-	-	-	-	N/A
Shed D_Loading Area	-	-	1.1	-	-	-	-	-	-	-	N/A
Shed A_Inspection Room	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed A_Inspection Room	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed B_Locker Room	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed B_kitchen corner	-	-	0.4	-	-	-	-	-	-	-	N/A
381 Office 4_GF_Reception	-	1.5	-	-	-	-	-	-	-	-	N/A
221 Office 1_1F_Service	-	-	-	1	-	-	-	-	-	-	N/A
463 Office 2_GF_Reception	-	-	-	1.5	-	-	-	-	-	-	N/A
460 Office 3_GF_Reception	-	-	-	1.5	-	-	-	-	-	-	N/A
Shed D_Wash Area	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed D_WC	-	-	0.4	-	-	-	-	-	-	-	N/A
Shed D_Shower	-	-	0.4	-	-	-	-	-	-	-	N/A

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	Luminaire	Lamp	Display lamp	General lighting [W]
Standard value	60	60	22	
021 Welfare 5_Kitchen 3	-	100	-	67

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
022 Welfare 5_Kitchen 2	-	100	-	50
023 Welfare 5_Corridor	-	100	-	40
024 Welfare 5_Shower entrance	-	100	-	15
025 Welfare 5_Shower 1	-	100	-	10
026 Welfare 5_Shower 2	-	100	-	10
027 Welfare 5_Shower 3	-	100	-	10
028 Welfare 5_WC 1	-	100	-	23
029 Welfare 5_WC 2	-	100	-	25
030 Border Force 2&3_GF_Office 1	100	-	-	145
031 Border Force 2&3_GF_Office 2	100	-	-	191
032 Border Force 2&3_GF_Kitchen 1	-	100	-	41
033 Border Force 2&3_GF_Corridor	-	100	-	45
034 Border Force 2&3_GF_Kitchen 2	-	100	-	56
035 Border Force 2&3_GF_Office 3	100	-	-	71
036 Border Force 2&3_GF_WC 2	-	100	-	30
037 Border Force 2&3_GF_WC 1	-	100	-	25
038 Border Force 2&3_1F_Office 1	100	-	-	134
039 Border Force 2&3_1F_Office 2	100	-	-	180
040 Border Force 2&3_1F_Corridor	-	100	-	40
041 Border Force 2&3_1F_Kitchen	-	100	-	50
042 Border Force 2&3_1F_Office 3	100	-	-	60
043 Border Force 2&3_1F_WC 2	-	100	-	25
044 Border Force 2&3_1F_WC 1	-	100	-	23
045 Border Force 2&3_1F_Shower entrance	-	100	-	15
046 Border Force 2&3_1F_Shower 3	-	100	-	10
047 Border Force 2&3_1F_Shower 2	-	100	-	11
048 Border Force 2&3_1F_Shower 1	-	100	-	10
049 Welfare 2_Kitchen 3	-	100	-	67
050 Welfare 2_Kitchen 2	-	100	-	50
051 Welfare 2_Corridor	-	100	-	40
052 Welfare 2_shower entrance	-	100	-	15
053 Welfare 2_Shower 1	-	100	-	10
054 Welfare 2_Shower 2	-	100	-	10
055 Welfare 2_Shower 3	-	100	-	10
056 Welfare 2_WC 1	-	100	-	23
057 Welfare 2_WC 2	-	100	-	25
058 Welfare 2_Faith Room	100	-	-	60
059 Welfare 2_Kitchen 1	-	100	-	51
060 Welfare 5_Faith Room	100	-	-	59
061 Welfare 5_Kitchen 1	-	100	-	51
062 Border Force 2&3_Office	100	-	-	134
063 Border Force 2&3_Rest room	-	100	-	68
064 Border Force 2&3_Corridor	-	100	-	40

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
065 Border Force 2&3_Kitchen	-	100	-	50
066 Border Force 2&3_Faith room	100	-	-	60
067 Border Force 2&3_WC 2	-	100	-	25
068 Border Force 2&3_WC 1	-	100	-	23
069 Border Force 2&3_Shower entrance	-	100	-	15
070 Border Force 2&3_Shower 3	-	100	-	10
071 Border Force 2&3_Shower 2	-	100	-	11
072 Border Force 2&3_Shower 1	-	100	-	10
073 HMRC 2_GF_Office 1	100	-	-	579
074 HMRC 2_GF_Kitchen	-	100	-	100
075 HMRC 2_GF_Store	100	-	-	17
076 HMRC 2_GF_WC 4	-	100	-	30
077 HMRC 2_GF_WC 3	-	100	-	30
078 HMRC 2_GF_WC 1	-	100	-	32
079 HMRC 2_GF_WC 2	-	100	-	28
080 HMRC 2_GF_Office 2	100	-	-	116
081 HMRC 2_GF_Server room	100	-	-	25
082 HMRC 2_GF_Office	100	-	-	856
083 HMRC 2_GF_Corridor	-	100	-	59
084 HMRC 2_1F_Office 1	100	-	-	568
085 HMRC 2_1F_Kitchen	-	100	-	95
086 HMRC 2_1F_Store	100	-	-	15
087 HMRC 2_1F_WC 4	-	100	-	25
088 HMRC 2_1F_WC 3	-	100	-	25
089 HMRC 2_1F_WC 1	-	100	-	27
090 HMRC 2_1F_WC 2	-	100	-	24
091 HMRC 2_1F_Office 2	100	-	-	106
092 HMRC 2_1F_Server room	100	-	-	22
093 HMRC 2_1F_Office	100	-	-	842
094 HMRC 2_1F_Corridor	-	100	-	53
095 HMRC 1_GF_Office 1	100	-	-	579
096 HMRC 1_GF_Kitchen	-	100	-	100
097 HMRC 1_GF_Store	100	-	-	17
098 HMRC 1_GF_WC 4	-	100	-	30
099 HMRC 1_GF_WC 3	-	100	-	30
100 HMRC 1_GF_WC 1	-	100	-	32
101 HMRC 1_GF_WC 2	-	100	-	28
102 HMRC 1_GF_Office 2	100	-	-	116
103 HMRC 1_GF_Server room	100	-	-	25
104 HMRC 1_GF_Office	100	-	-	856
105 HMRC 1_GF_Corridor	-	100	-	59
106 HMRC 1_1F_Office 1	100	-	-	568
107 HMRC 1_1F_Kitchen	-	100	-	95

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
108 HMRC 1_1F_Store	100	-	-	15
109 HMRC 1_1F_WC 4	-	100	-	25
110 HMRC 1_1F_WC 3	-	100	-	25
111 HMRC 1_1F_WC 1	-	100	-	27
112 HMRC 1_1F_WC 2	-	100	-	24
113 HMRC 1_1F_Office 2	100	-	-	106
114 HMRC 1_1F_Server room	100	-	-	22
115 HMRC 1_1F_Office	100	-	-	842
116 HMRC 1_1F_Corridor	-	100	-	53
117 Drivers Welfare_GF_WC 1	-	100	-	32
118 Drivers Welfare_GF_ WC Corridor	-	100	-	41
119 Drivers Welfare_GF_ WC 7	-	100	-	30
120 Drivers Welfare_GF_ Store	100	-	-	5
121 Drivers Welfare_GF_ WC 2	-	100	-	19
122 Drivers Welfare_GF_ WC 3	-	100	-	19
123 Drivers Welfare_GF_ WC 4	-	100	-	19
124 Drivers Welfare_GF_ WC 6	-	100	-	18
125 Drivers Welfare_GF_ WC 5	-	100	-	18
126 Drivers Welfare_GF_WC 8	-	100	-	32
127 Drivers Welfare_GF_ WC Corridor	-	100	-	41
128 Drivers Welfare_GF_ WC 14	-	100	-	30
129 Drivers Welfare_GF_ Store	100	-	-	5
130 Drivers Welfare_GF_ WC 9	-	100	-	19
131 Drivers Welfare_GF_ WC 10	-	100	-	19
132 Drivers Welfare_GF_ WC 11	-	100	-	19
133 Drivers Welfare_GF_ WC 13	-	100	-	18
134 Drivers Welfare_GF_ WC 12	-	100	-	18
135 Drivers Welfare_1F_WC 1	-	100	-	27
136 Drivers Welfare_1F_ WC Corridor	-	100	-	34
137 Drivers Welfare_1F_ WC 7	-	100	-	25
138 Drivers Welfare_1F_ Store	100	-	-	5
139 Drivers Welfare_1F_ WC 2	-	100	-	19
140 Drivers Welfare_1F_ WC 3	-	100	-	19
141 Drivers Welfare_1F_ WC 4	-	100	-	19
142 Drivers Welfare_1F_ WC 6	-	100	-	18
143 Drivers Welfare_1F_ WC 5	-	100	-	18
144 Drivers Welfare_1F_WC 8	-	100	-	27
145 Drivers Welfare_1F_ Store	100	-	-	5
146 Drivers Welfare_1F_ WC 9	-	100	-	19
147 Drivers Welfare_1F_ WC 10	-	100	-	19
148 Drivers Welfare_1F_ WC 11	-	100	-	19
149 Drivers Welfare_1F_ WC 13	-	100	-	18
150 Drivers Welfare_1F_ WC 12	-	100	-	18

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
151 Drivers Welfare_1F_ WC Corridor	-	100	-	34
152 Drivers Welfare_1F_ WC 14	-	100	-	25
153 Alpha Building 2_GF_Office 2	100	-	-	336
154 Alpha Building 2_GF_Office 1	100	-	-	87
155 Alpha Building 2_GF_Store 2	100	-	-	8
156 Alpha Building 2_GF_WC 2	-	100	-	30
157 Alpha Building 2_GF_WC 1	-	100	-	24
158 Alpha Building 2_GF_Store 1	100	-	-	10
159 Alpha Building 2_GF_Kitchen	-	100	-	70
160 Alpha Building 2_GF_Corridor	-	100	-	36
161 Alpha Building 2_1F_Office 2	100	-	-	326
162 Alpha Building 2_1F_Store 1	100	-	-	10
163 Alpha Building 2_1F_Store 2	100	-	-	6
164 Alpha Building 2_1F_WC 2	-	100	-	25
165 Alpha Building 2_1F_WC 1	-	100	-	23
166 Alpha Building 2_1F_Office 1	100	-	-	66
167 Alpha Building 2_1F_Kitchen	-	100	-	66
168 Alpha Building 2_1F_Corridor	-	100	-	32
169 Alpha Building 1_GF_Store 1	100	-	-	11
170 Alpha Building 1_GF_Store 2	100	-	-	8
171 Alpha Building 1_GF_WC 2	-	100	-	30
172 Alpha Building 1_GF_WC 1	-	100	-	24
173 Alpha Building 1_GF_Office 1	100	-	-	76
174 Alpha Building 1_GF_Kitchen	-	100	-	70
175 Alpha Building 1_GF_Corridor	-	100	-	36
176 Alpha Building 1_GF_Office 2	100	-	-	125
177 Alpha Building 1_GF_Office 3	100	-	-	256
178 Alpha Building 1_1F_Store 1	100	-	-	11
179 Alpha Building 1_1F_Store 2	100	-	-	8
180 Alpha Building 1_1F_WC 2	-	100	-	30
181 Alpha Building 1_1F_WC 1	-	100	-	24
182 Alpha Building 1_1F_Office 1	100	-	-	76
183 Alpha Building 1_1F_Kitchen	-	100	-	70
184 Alpha Building 1_1F_Corridor	-	100	-	36
185 Alpha Building 1_1F_Office 2	100	-	-	336
186 Office 1_GF_Store 1	100	-	-	34
187 Office 1_GF_office 4	100	-	-	121
188 Office 1_GF_Service	100	-	-	61
189 Office 1_GF_Store 2	100	-	-	15
190 Office 1_GF_Meeting Room	120	-	-	162
191 Office 1_GF_office 1	100	-	-	123
192 Office 1_GF_office 2	100	-	-	189
193 Office 1_GF_Kitchen	-	100	-	103

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
194 Office 1_GF_Open Plan Office 3	120	-	-	368
195 Office 1_GF_office 5	100	-	-	153
196 Office 1_GF_WC 4	-	100	-	33
197 Office 1_GF_WC 5	-	100	-	24
198 Office 1_GF_WC 6	-	100	-	24
199 Office 1_GF_WC 7	-	100	-	24
200 Office 1_GF_WC Entrance	-	100	-	24
201 Office 1_GF_WC 3	-	100	-	26
202 Office 1_GF_WC 2	-	100	-	26
203 Office 1_GF_WC 1	-	100	-	40
204 Office 1_GF_locker room	-	100	-	42
205 Office 1_GF_Circulation	-	120	-	17
206 Office 1_GF_office 6	100	-	-	161
207 Office 1_GF_Corridor	-	120	-	122
208 Office 1_GF_Faith Room	100	-	-	84
209 Office 1_GF_shower 1	-	100	-	13
210 Office 1_GF_shower 2	-	100	-	11
211 Office 1_1F_Store 2	100	-	-	34
212 Office 1_1F_WC 4	-	100	-	33
213 Office 1_1F_WC 5	-	100	-	24
214 Office 1_1F_WC 6	-	100	-	24
215 Office 1_1F_WC 7	-	100	-	24
216 Office 1_1F_WC Entrance	-	100	-	24
217 Office 1_1F_WC 3	-	100	-	26
218 Office 1_1F_WC 2	-	100	-	26
219 Office 1_1F_WC 1	-	100	-	40
220 Office 1_1F_Meeting Room	120	-	-	161
222 Office 1_1F_Store 4	100	-	-	15
223 Office 1_1F_Mess Hall	-	100	-	195
224 Office 1_1F_office 2	100	-	-	121
225 Office 1_1F_Open Plan Office 1	120	-	-	299
226 Office 1_1F_locker room	-	100	-	42
227 Office 1_1F_Store 1	100	-	-	8
228 Office 1_1F_Corridor	-	120	-	123
229 Office 1_1F_Store 5	100	-	-	15
230 Office 1_1F_office 3	100	-	-	196
231 00004 Office_GF_Office	100	-	-	233
232 00004 Office_GF_Kitchen	-	100	-	101
233 00004 Office_GF_Circulation	-	100	-	29
234 00004 Office_GF_Corridor	-	100	-	42
235 00004 Office_GF_Store	100	-	-	19
236 00004 Office_GF_Office 2	100	-	-	156
237 00004 Office_GF_Office	100	-	-	88

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
238 00004 Office_GF_Office 1	100	-	-	421
239 00004 Office_GF_Mess Hall	-	100	-	163
240 00004 Office_GF_Corridor	-	100	-	98
241 00004 Office_GF_WC 1	-	100	-	31
242 00004 Office_GF_WC 2	-	100	-	27
243 00004 Office_GF_WC 3	-	100	-	31
244 00004 Office_GF_WC 4	-	100	-	30
245 00004 Office_GF_WC 6	-	100	-	30
246 00004 Office_GF_WC 5	-	100	-	31
247 00004 Office_1F_Office 4	100	-	-	222
248 00004 Office_1F_Entrance 2	-	100	-	26
249 00004 Office_1F_WC 1	-	100	-	25
250 00004 Office_1F_WC 2	-	100	-	25
251 00004 Office_1F_WC 4	-	100	-	25
252 00004 Office_1F_WC 3	-	100	-	25
253 00004 Office_1F_Office 2	100	-	-	232
254 00004 Office_1F_Office 1	100	-	-	603
255 00004 Office_1F_ Entrance 1	-	100	-	21
256 00004 Office_1F_Store 1	100	-	-	10
257 00004 Office_1F_Office 3	100	-	-	446
258 00004 Office_1F_Corridor	-	100	-	27
259 00004 Office_1F_Corridor	-	100	-	27
260 00004 Office_1F_Kitchen	-	100	-	107
261 00003 WCs_Store	-	100	-	14
262 00003 WCs_WC Entrance	-	100	-	19
263 00003 WCs_WC 5	-	100	-	23
264 00003 WCs_WC 4	-	100	-	12
265 00003 WCs_WC 4	-	100	-	12
266 00003 WCs_WC 3	-	100	-	12
267 00003 WCs_WC 2	-	100	-	12
268 00003 WCs_WC 2	-	100	-	12
269 Office 2_GF_Open Plan Office	100	-	-	581
270 Office 2_GF_Corridor 2	-	100	-	78
271 Office 2_GF_WC	-	100	-	45
272 Office 2_GF_Store	100	-	-	18
273 Office 2_GF_Office	100	-	-	146
274 Office 2_GF_Office	100	-	-	142
275 Office 2_GF_WC 7	-	100	-	24
276 Office 2_GF_Locker Room 2	-	100	-	46
277 Office 2_GF_Shower 2	-	100	-	12
278 Office 2_GF_Office	100	-	-	90
279 Office 2_GF_Store	100	-	-	143
280 Office 2_GF_WC 1	-	100	-	32

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
281 Office 2_GF_Shower 1	-	100	-	13
282 Office 2_GF_WC 6	-	100	-	25
283 Office 2_GF_Locker Room	-	100	-	45
284 Office 2_GF_Kitchen	-	100	-	77
285 Office 2_GF_Office	100	-	-	147
286 Office 2_GF_Wc entrance	-	100	-	23
287 Office 2_GF_WC 5	-	100	-	22
288 Office 2_GF_WC 4	-	100	-	22
289 Office 2_GF_WC 3	-	100	-	21
290 Office 2_GF_WC 2	-	100	-	22
291 Office 2_1F_Store	100	-	-	140
292 Office 2_1F_WC Entrance 1	-	100	-	21
293 Office 2_1F_Comms	100	-	-	35
294 Office 2_1F_Office 4	100	-	-	141
295 Office 2_1F_Office 5	100	-	-	140
296 Office 2_1F_Store	100	-	-	87
297 Office 2_1F_Office 8	100	-	-	82
298 Office 2_1F_Corridor	-	100	-	34
299 Office 2_1F_Open Plan Office	100	-	-	481
300 Office 2_1F_Office 3	100	-	-	201
301 Office 2_1F_WC 3	-	100	-	24
302 Office 2_1F_Change Room	-	100	-	12
303 Office 2_1F_WC 2	-	100	-	25
304 Office 2_1F_WC 5	-	100	-	24
305 Office 2_1F_Shower	-	100	-	12
306 Office 2_1F_WC 4	-	100	-	25
307 Office 2_1F_WC 6	-	100	-	30
308 Office 2_1F_WC Entrance 2	-	100	-	21
309 Office 2_1F_Office 2	100	-	-	258
310 Office 2_1F_WC 10	-	100	-	23
311 Office 2_1F_WC 9	-	100	-	22
312 Office 2_1F_WC 7	-	100	-	23
313 Office 2_1F_WC 8	-	100	-	23
314 Office 2_1F_Store	100	-	-	142
315 Office 2_1F_Office 10	100	-	-	119
316 Office 2_1F_Corridor	-	100	-	237
317 Office 3_GF_Open Plan Office	100	-	-	581
318 Office 3_GF_Corridor 2	-	100	-	78
319 Office 3_GF_WC	-	100	-	45
320 Office 3_GF_Office	100	-	-	143
321 Office 3_GF_Faith Room	100	-	-	146
322 Office 3_GF_Office	100	-	-	142
323 Office 3_GF_WC 7	-	100	-	24

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
324 Office 3_GF_Locker Room 2	-	100	-	46
325 Office 3_GF_Shower 2	-	100	-	12
326 Office 3_GF_Office	100	-	-	90
327 Office 3_GF_Store	100	-	-	143
328 Office 3_GF_WC 1	-	100	-	32
329 Office 3_GF_Shower 1	-	100	-	13
330 Office 3_GF_WC 6	-	100	-	25
331 Office 3_GF_Locker Room	-	100	-	45
332 Office 3_GF_Kitchen	-	100	-	77
333 Office 3_GF_Office	100	-	-	147
334 Office 3_GF_WC entrance	-	100	-	23
335 Office 3_GF_WC 5	-	100	-	22
336 Office 3_GF_WC 4	-	100	-	22
337 Office 3_GF_WC 3	-	100	-	21
338 Office 3_GF_WC 2	-	100	-	22
339 Office 3_1F_Store	100	-	-	140
340 Office 3_1F_WC Entrance 1	-	100	-	21
341 Office 3_1F_Comms	100	-	-	35
342 Office 3_1F_Office 4	100	-	-	141
343 Office 3_1F_Office 5	100	-	-	140
344 Office 3_1F_Store	100	-	-	87
345 Office 3_1F_Store	100	-	-	82
346 Office 3_1F_Corridor	-	100	-	34
347 Office 3_1F_Open Plan Office	100	-	-	481
348 Office 3_1F_Office 3	100	-	-	201
349 Office 3_1F_WC 3	-	100	-	24
350 Office 3_1F_Change Room	-	100	-	12
351 Office 3_1F_WC 2	-	100	-	25
352 Office 3_1F_WC 5	-	100	-	24
353 Office 3_1F_Shower	-	100	-	12
354 Office 3_1F_WC 4	-	100	-	25
355 Office 3_1F_WC 6	-	100	-	30
356 Office 3_1F_WC Entrance 2	-	100	-	21
357 Office 3_1F_Office 2	100	-	-	258
358 Office 3_1F_WC 10	-	100	-	23
359 Office 3_1F_WC 9	-	100	-	22
360 Office 3_1F_WC 7	-	100	-	23
361 Office 3_1F_WC 8	-	100	-	23
362 Office 3_1F_Store	100	-	-	142
363 Office 3_1F_Office 10	100	-	-	119
364 Office 3_1F_Corridor	-	100	-	237
365 Office 4_GF_Wc entrance	-	100	-	22
366 Office 4_GF_WC 4	-	100	-	38

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
367 Office 4_GF_Office	100	-	-	86
368 Office 4_GF_Office	100	-	-	141
369 Office 4_GF_Kitchen	-	100	-	34
370 Office 4_GF_Office	100	-	-	84
371 Office 4_GF_Office	100	-	-	96
372 Office 4_GF_Shower 1	-	100	-	13
373 Office 4_GF_Change Room 1	-	100	-	44
374 Office 4_GF_WC 1	-	100	-	24
375 Office 4_GF_Shower 2	-	100	-	13
376 Office 4_GF_WC 2	-	100	-	24
377 Office 4_GF_Change Room 2	-	100	-	44
378 Office 4_GF_WC 3	-	100	-	25
379 Office 4_GF_Change Room 3	-	100	-	45
380 Office 4_GF_Shower 3	-	100	-	13
382 Office 4_GF_Open Plan Office	100	-	-	616
383 Office 4_1F_Kitchen	-	100	-	74
384 Office 4_1F_Corridor	-	100	-	83
385 Office 4_1F_Office	100	-	-	135
386 Office 4_1F_Service Room 1	100	-	-	69
387 Office 4_1F_Store 1	100	-	-	10
388 Office 4_1F_WC Entrance	-	100	-	21
389 Office 4_1F_WC 1	-	100	-	22
390 Office 4_1F_Shower 1	-	100	-	11
391 Office 4_1F_WC 2	-	100	-	23
392 Office 4_1F_WC 3	-	100	-	22
393 Office 4_1F_WC 4	-	100	-	22
394 Office 4_1F_Shower 2	-	100	-	11
395 Office 4_1F_Open PLan Office	100	-	-	688
396 Office 4_1F_Corridor	-	100	-	30
397 Office 4_1F_WC	-	100	-	35
398 Office 4_1F_Service Room 2	100	-	-	68
399 Office 4_1F_Store 2	100	-	-	17
458 Office 3_GF_Office 1	100	-	-	69
459 Office 3_GF_Office	100	-	-	96
461 Office 2_GF_Office 1	100	-	-	69
462 Office 2_GF_Office	100	-	-	97
Security Cabin 01	-	100	-	12
Security Cabin 02	-	100	-	12
Security Cabin 03	-	100	-	12
Security Cabin 04	-	100	-	12
Security Cabin 05	-	100	-	12
Security Cabin 06	-	100	-	12
Security Cabin 07	-	100	-	12

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
Security Cabin 08	-	100	-	12
Security Cabin 09	-	100	-	12
Security Cabin 10	-	100	-	12
Security Cabin 11	-	100	-	12
Security Cabin 12	-	100	-	12
Security Cabin 13	-	100	-	12
Security Cabin 14	-	100	-	12
Security Cabin 15	-	100	-	12
Security Cabin 16	-	100	-	12
Security Cabin 17	-	100	-	12
Security Cabin 18	-	100	-	12
Security Cabin 19	-	100	-	12
Security Cabin 20	-	100	-	12
Security Cabin 21	-	100	-	12
Security Cabin 22	-	100	-	12
Security Cabin 23	-	100	-	12
Security Cabin 24	-	100	-	12
Security Cabin 25	-	100	-	12
Security Cabin 26	-	100	-	12
Security Cabin 27	-	100	-	12
Security Cabin 28	-	100	-	12
Security Cabin 29	-	100	-	12
Security Cabin 30	-	100	-	12
Security Cabin 31	-	100	-	12
Security Cabin 32	-	100	-	12
Security Cabin 33	-	100	-	12
Security Cabin 34	-	100	-	12
Security Cabin 35	-	100	-	12
Security Cabin 36	-	100	-	12
Security Cabin 37	-	100	-	12
Security Cabin 38	-	100	-	12
Security Cabin 39	-	100	-	12
Security Cabin 40	-	100	-	12
Security Cabin 41	-	100	-	12
Security Cabin 42	-	100	-	12
Security Cabin 43	-	100	-	12
Security Cabin 44	-	100	-	12
Security Cabin 45	-	100	-	12
Security Cabin 46	-	100	-	12
Security Cabin 47	-	100	-	12
Security Cabin 48	-	100	-	12
Security Cabin 49	-	100	-	12
Security Cabin 50	-	100	-	12

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
Security Cabin 51	-	100	-	12
004 Inspection Shed 1_CCTV	100	-	-	26
405 Inspection Shed 2_CCTV	100	-	-	26
018 Inspection Shed 3_CCTV	100	-	-	23
013 Inspection Shed 4_CCTV	100	-	-	23
Shed A_Loading Area	-	145	-	190
Shed A_Inspection Room	145	-	-	304
Shed A_Inspection Room	145	-	-	153
Shed A_Inspection Room	145	-	-	157
Shed A_Inspection Room	145	-	-	170
Shed A_Inspection Room	145	-	-	167
Shed A_Inspection Room	145	-	-	167
Shed A_Inspection Room	145	-	-	166
Shed A_WC	-	133	-	32
Shed A_WC	-	133	-	31
Shed A_Office	145	-	-	114
Shed A_Inspection Room	145	-	-	151
Shed A_Inspection Room	145	-	-	149
Shed A_Inspection Room	145	-	-	151
Shed A_Inspection Room	145	-	-	141
Shed B_Loading Area	-	145	-	235
Shed B_Office	145	-	-	247
Shed B_Office	145	-	-	213
Shed B_Service Room	145	-	-	49
Shed B_Office	145	-	-	241
Shed B_Inspection Room	145	-	-	166
Shed B_Inspection Room	145	-	-	161
Shed B_Inspection Room	145	-	-	160
Shed B_Office	145	-	-	103
Shed B_Inspection Room	145	-	-	191
Shed B_Office	145	-	-	134
Shed B_Office	145	-	-	142
Shed B_Loading Area	-	145	-	638
Shed B_Loading Area	-	145	-	628
Shed D_Inspection Room	145	-	-	402
Shed D_Plant	145	-	-	63
Shed D_Store	145	-	-	17
Shed D_Loading Area	-	145	-	573
Shed A_Loading Area	-	145	-	267
Shed A_Loading Area	-	145	-	544
Shed A_Inspection Room	145	-	-	154
Shed A_Inspection Room	145	-	-	154
Shed B_WC	-	133	-	26

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
Shed B_Locker Room	-	145	-	24
Shed B_kitchen corner	-	145	-	43
381 Office 4_GF_Reception	-	100	-	36
381 Office 4_GF_Corridor	-	100	-	88
221 Office 1_1F_Store 3	100	-	-	15
221 Office 1_1F_Service	100	-	-	24
463 Office 2_GF_Reception	-	100	-	52
463 Office 2_GF_Corridor 1	-	100	-	140
460 Office 3_GF_Reception	-	100	-	54
460 Office 3_GF_Corridor 1	-	100	-	139
Shed D_Wash Area	-	133	-	51
Shed D_WC	-	133	-	20
Shed D_Shower	-	133	-	10
Shed E_Plant	145	-	-	73
Shed E_Cleaners Store	145	-	-	12
Shed E_Store	145	-	-	23
Shed E_Cleaners Store	145	-	-	16
Shed E_Store	145	-	-	21
Shed E_Plant	145	-	-	27
Shed E_Wash Room	-	133	-	75
Shed E_Shower	-	133	-	9
Shed E_WC	-	133	-	18
Shed E_Loading Area	-	145	-	835
Shed E_Loading Area	-	145	-	397
Shed C_Feed/Bedding Store	145	-	-	18
Shed C_Holding Room	145	-	-	13
Shed C_Holding Room	145	-	-	13
Shed C_Holding Room	145	-	-	13
Shed C_Holding Room	145	-	-	25
Shed C_Holding Room	145	-	-	13
Shed C_Plant	145	-	-	79
Shed C_Circulation	-	145	-	174
Shed C_Vehicle Holding Bay	-	145	-	93
Shed C_Feed/Bedding Store	145	-	-	33
Shed C_Inspection Room	145	-	-	129
Shed C_Cupboard	145	-	-	7
Shed C_Inspection Room	145	-	-	129
Shed C_Holding CAt Pens	145	-	-	21
Shed C_Dog Holding Area	145	-	-	67
Shed C_Plant	145	-	-	81
Shed C_Circulation	-	145	-	31
Shed C_Wash Room	-	133	-	80
Shed C_Cupboard	145	-	-	8

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
Shed C_Cat Holding Room	145	-	-	13
Shed C_Inspection Room	145	-	-	122
Shed C_Cupboard	145	-	-	8
Shed C_WC	-	133	-	31
Shed C_Wash Room	-	133	-	113
Shed C_Inspection Room	145	-	-	123
Shed C_Inspection Room	145	-	-	123
Shed C_Cupboard	145	-	-	8
Shed C_Cupboard	145	-	-	8
Shed C_Cupboard	145	-	-	8
Shed C_Cat Holding Room	145	-	-	12
Shed C_Inspection Room	145	-	-	117
Shed C_Cupboard	145	-	-	9
Shed C_WC	-	133	-	35
Shed C_Wash Room	-	133	-	114
Shed C_Inspection Room	145	-	-	115
Shed C_Cupboard	145	-	-	7
Shed C_Feed/Bedding Store	145	-	-	19
Shed C_Circulation	-	145	-	26
Shed C_Holding Area	145	-	-	7
Shed C_Circulation	-	145	-	43
Shed C_Holding Room	145	-	-	13
Shed C_Dog Holding Area	145	-	-	31
Shed C_Circulation	-	145	-	260
Shed C_Inspection Bay	-	145	-	1456

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?
021 Welfare 5_Kitchen 3	NO (-93.6%)	NO
022 Welfare 5_Kitchen 2	NO (-88%)	NO
030 Border Force 2&3_GF_Office 1	NO (-81.2%)	NO
031 Border Force 2&3_GF_Office 2	NO (-80.5%)	NO
032 Border Force 2&3_GF_Kitchen 1	N/A	N/A
034 Border Force 2&3_GF_Kitchen 2	NO (-90.4%)	NO
035 Border Force 2&3_GF_Office 3	N/A	N/A
038 Border Force 2&3_1F_Office 1	NO (-79.6%)	NO
039 Border Force 2&3_1F_Office 2	NO (-80%)	NO
041 Border Force 2&3_1F_Kitchen	NO (-87.2%)	NO
042 Border Force 2&3_1F_Office 3	N/A	N/A
049 Welfare 2_Kitchen 3	NO (-83.5%)	NO
050 Welfare 2_Kitchen 2	NO (-84%)	NO
058 Welfare 2_Faith Room	N/A	N/A
059 Welfare 2_Kitchen 1	NO (-91.9%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
060 Welfare 5_Faith Room	N/A	N/A
061 Welfare 5_Kitchen 1	NO (-80.8%)	NO
062 Border Force 2&3_Office	NO (-81.6%)	NO
063 Border Force 2&3_Rest room	NO (-80.8%)	NO
065 Border Force 2&3_Kitchen	NO (-91%)	NO
066 Border Force 2&3_Faith room	N/A	N/A
073 HMRC 2_GF_Office 1	NO (-71.2%)	NO
074 HMRC 2_GF_Kitchen	NO (-95.7%)	NO
080 HMRC 2_GF_Office 2	NO (-84.9%)	NO
081 HMRC 2_GF_Server room	N/A	N/A
082 HMRC 2_GF_Office	NO (-87.2%)	NO
084 HMRC 2_1F_Office 1	NO (-68.9%)	NO
085 HMRC 2_1F_Kitchen	NO (-94.2%)	NO
091 HMRC 2_1F_Office 2	NO (-80.6%)	NO
092 HMRC 2_1F_Server room	N/A	N/A
093 HMRC 2_1F_Office	NO (-83.1%)	NO
095 HMRC 1_GF_Office 1	NO (-73.1%)	NO
096 HMRC 1_GF_Kitchen	NO (-96.3%)	NO
102 HMRC 1_GF_Office 2	NO (-82.9%)	NO
103 HMRC 1_GF_Server room	N/A	N/A
104 HMRC 1_GF_Office	NO (-86.5%)	NO
106 HMRC 1_1F_Office 1	NO (-68.4%)	NO
107 HMRC 1_1F_Kitchen	NO (-95.1%)	NO
113 HMRC 1_1F_Office 2	NO (-79.7%)	NO
114 HMRC 1_1F_Server room	N/A	N/A
115 HMRC 1_1F_Office	NO (-81.5%)	NO
153 Alpha Building 2_GF_Office 2	NO (-91.2%)	NO
154 Alpha Building 2_GF_Office 1	N/A	N/A
155 Alpha Building 2_GF_Store 2	N/A	N/A
158 Alpha Building 2_GF_Store 1	NO (-91.7%)	NO
159 Alpha Building 2_GF_Kitchen	NO (-86.4%)	NO
161 Alpha Building 2_1F_Office 2	NO (-87.8%)	NO
162 Alpha Building 2_1F_Store 1	N/A	N/A
163 Alpha Building 2_1F_Store 2	N/A	N/A
166 Alpha Building 2_1F_Office 1	NO (-88.6%)	NO
167 Alpha Building 2_1F_Kitchen	NO (-82.4%)	NO
169 Alpha Building 1_GF_Store 1	N/A	N/A
170 Alpha Building 1_GF_Store 2	N/A	N/A
173 Alpha Building 1_GF_Office 1	NO (-83.3%)	NO
174 Alpha Building 1_GF_Kitchen	NO (-84.3%)	NO
176 Alpha Building 1_GF_Office 2	NO (-89.4%)	NO
177 Alpha Building 1_GF_Office 3	NO (-73.2%)	NO
178 Alpha Building 1_1F_Store 1	N/A	N/A
179 Alpha Building 1_1F_Store 2	N/A	N/A
182 Alpha Building 1_1F_Office 1	NO (-83.2%)	NO
183 Alpha Building 1_1F_Kitchen	NO (-81.4%)	NO
185 Alpha Building 1_1F_Office 2	NO (-82.2%)	NO
187 Office 1_GF_office 4	NO (-68.9%)	NO
188 Office 1_GF_Service	NO (-69.3%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
190 Office 1_GF_Meeting Room	NO (-68.4%)	NO
191 Office 1_GF_office 1	NO (-97.6%)	NO
192 Office 1_GF_office 2	NO (-91.1%)	NO
193 Office 1_GF_Kitchen	NO (-91.4%)	NO
194 Office 1_GF_Open Plan Office 3	NO (-91.3%)	NO
195 Office 1_GF_office 5	NO (-77.6%)	NO
206 Office 1_GF_office 6	NO (-84%)	NO
208 Office 1_GF_Faith Room	N/A	N/A
220 Office 1_1F_Meeting Room	NO (-67.5%)	NO
223 Office 1_1F_Mess Hall	NO (-91.9%)	NO
224 Office 1_1F_office 2	NO (-86.2%)	NO
225 Office 1_1F_Open Plan Office 1	NO (-86.4%)	NO
230 Office 1_1F_office 3	NO (-68.1%)	NO
231 00004 Office_GF_Office	NO (-73.8%)	NO
232 00004 Office_GF_Kitchen	NO (-79%)	NO
233 00004 Office_GF_Circulation	NO (-87.3%)	NO
235 00004 Office_GF_Store	N/A	N/A
236 00004 Office_GF_Office 2	NO (-71.5%)	NO
237 00004 Office_GF_Office	NO (-84.8%)	NO
238 00004 Office_GF_Office 1	NO (-74.7%)	NO
239 00004 Office_GF_Mess Hall	NO (-71.2%)	NO
247 00004 Office_1F_Office 4	NO (-69.7%)	NO
248 00004 Office_1F_Entrance 2	NO (-85.3%)	NO
253 00004 Office_1F_Office 2	NO (-70.7%)	NO
254 00004 Office_1F_Office 1	NO (-73.2%)	NO
255 00004 Office_1F_ Entrance 1	N/A	N/A
256 00004 Office_1F_Store 1	NO (-85.1%)	NO
257 00004 Office_1F_Office 3	NO (-70.4%)	NO
260 00004 Office_1F_Kitchen	NO (-88.8%)	NO
269 Office 2_GF_Open Plan Office	NO (-87.8%)	NO
272 Office 2_GF_Store	N/A	N/A
273 Office 2_GF_Office	NO (-92.8%)	NO
274 Office 2_GF_Office	NO (-92.6%)	NO
276 Office 2_GF_Locker Room 2	N/A	N/A
278 Office 2_GF_Office	NO (-92.6%)	NO
279 Office 2_GF_Store	N/A	N/A
284 Office 2_GF_Kitchen	NO (-92.8%)	NO
285 Office 2_GF_Office	NO (-92.9%)	NO
291 Office 2_1F_Store	NO (-92%)	NO
293 Office 2_1F_Comms	NO (-85.3%)	NO
294 Office 2_1F_Office 4	NO (-85.6%)	NO
295 Office 2_1F_Office 5	NO (-85.5%)	NO
296 Office 2_1F_Store	NO (-85.9%)	NO
297 Office 2_1F_Office 8	NO (-84.3%)	NO
299 Office 2_1F_Open Plan Office	NO (-88.7%)	NO
300 Office 2_1F_Office 3	NO (-85.7%)	NO
309 Office 2_1F_Office 2	NO (-89.2%)	NO
314 Office 2_1F_Store	N/A	N/A
315 Office 2_1F_Office 10	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
317 Office 3_GF_Open Plan Office	NO (-88.1%)	NO
320 Office 3_GF_Office	N/A	N/A
321 Office 3_GF_Faith Room	NO (-93.2%)	NO
322 Office 3_GF_Office	NO (-93%)	NO
326 Office 3_GF_Office	NO (-93.1%)	NO
327 Office 3_GF_Store	N/A	N/A
332 Office 3_GF_Kitchen	NO (-93.3%)	NO
333 Office 3_GF_Office	NO (-93.3%)	NO
339 Office 3_1F_Store	NO (-93.1%)	NO
341 Office 3_1F_Comms	NO (-87.4%)	NO
342 Office 3_1F_Office 4	NO (-87.7%)	NO
343 Office 3_1F_Office 5	NO (-87.6%)	NO
344 Office 3_1F_Store	NO (-87.9%)	NO
345 Office 3_1F_Store	NO (-86.6%)	NO
347 Office 3_1F_Open Plan Office	NO (-89.7%)	NO
348 Office 3_1F_Office 3	NO (-87.8%)	NO
357 Office 3_1F_Office 2	NO (-90.7%)	NO
362 Office 3_1F_Store	N/A	N/A
363 Office 3_1F_Office 10	N/A	N/A
367 Office 4_GF_Office	NO (-96.7%)	NO
368 Office 4_GF_Office	NO (-92.4%)	NO
369 Office 4_GF_Kitchen	NO (-93.2%)	NO
370 Office 4_GF_Office	NO (-97.2%)	NO
371 Office 4_GF_Office	NO (-92.9%)	NO
382 Office 4_GF_Open Plan Office	NO (-91.9%)	NO
383 Office 4_1F_Kitchen	NO (-86.1%)	NO
385 Office 4_1F_Office	NO (-92.2%)	NO
386 Office 4_1F_Service Room 1	NO (-86.2%)	NO
395 Office 4_1F_Open PLan Office	NO (-90.3%)	NO
398 Office 4_1F_Service Room 2	NO (-85.8%)	NO
399 Office 4_1F_Store 2	NO (-91.9%)	NO
458 Office 3_GF_Office 1	N/A	N/A
459 Office 3_GF_Office	NO (-97.6%)	NO
461 Office 2_GF_Office 1	N/A	N/A
462 Office 2_GF_Office	NO (-97.4%)	NO
004 Inspection Shed 1_CCTV	N/A	N/A
405 Inspection Shed 2_CCTV	N/A	N/A
018 Inspection Shed 3_CCTV	N/A	N/A
013 Inspection Shed 4_CCTV	N/A	N/A
Shed A_Inspection Room	NO (-75.5%)	NO
Shed A_Inspection Room	N/A	N/A
Shed A_Inspection Room	N/A	N/A
Shed A_Inspection Room	N/A	N/A
Shed A_Inspection Room	N/A	N/A
Shed A_Inspection Room	N/A	N/A
Shed A_Inspection Room	N/A	N/A
Shed A_Office	N/A	N/A
Shed A_Inspection Room	N/A	N/A
Shed A_Inspection Room	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Shed A_Inspection Room	N/A	N/A
Shed A_Inspection Room	N/A	N/A
Shed B_Office	N/A	N/A
Shed B_Office	N/A	N/A
Shed B_Service Room	N/A	N/A
Shed B_Office	N/A	N/A
Shed B_Inspection Room	N/A	N/A
Shed B_Inspection Room	N/A	N/A
Shed B_Inspection Room	N/A	N/A
Shed B_Office	N/A	N/A
Shed B_Inspection Room	N/A	N/A
Shed B_Office	N/A	N/A
Shed B_Office	N/A	N/A
Shed D_Inspection Room	N/A	N/A
Shed D_Plant	N/A	N/A
Shed D_Store	N/A	N/A
Shed D_Loading Area	N/A	N/A
Shed A_Inspection Room	N/A	N/A
Shed A_Inspection Room	N/A	N/A
Shed B_Locker Room	N/A	N/A
Shed B_kitchen corner	N/A	N/A
221 Office 1_1F_Service	NO (-83.7%)	NO
463 Office 2_GF_Reception	N/A	N/A
460 Office 3_GF_Reception	N/A	N/A
Shed D_Wash Area	N/A	N/A
Shed D_WC	N/A	N/A
Shed D_Shower	N/A	N/A
Shed E_Plant	N/A	N/A
Shed E_Cleaners Store	N/A	N/A
Shed E_Store	N/A	N/A
Shed E_Cleaners Store	N/A	N/A
Shed E_Store	N/A	N/A
Shed E_Plant	N/A	N/A
Shed E_Wash Room	N/A	N/A
Shed E_Shower	N/A	N/A
Shed E_WC	N/A	N/A
Shed C_Feed/Bedding Store	N/A	N/A
Shed C_Holding Room	N/A	N/A
Shed C_Holding Room	N/A	N/A
Shed C_Holding Room	N/A	N/A
Shed C_Holding Room	N/A	N/A
Shed C_Holding Room	N/A	N/A
Shed C_Plant	N/A	N/A
Shed C_Circulation	N/A	N/A
Shed C_Vehicle Holding Bay	N/A	N/A
Shed C_Feed/Bedding Store	N/A	N/A
Shed C_Inspection Room	N/A	N/A
Shed C_Cupboard	N/A	N/A
Shed C_Inspection Room	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Shed C_Holding CAt Pens	N/A	N/A
Shed C_Dog Holding Area	N/A	N/A
Shed C_Plant	N/A	N/A
Shed C_Circulation	N/A	N/A
Shed C_Cupboard	N/A	N/A
Shed C_Cat Holding Room	N/A	N/A
Shed C_Inspection Room	N/A	N/A
Shed C_Cupboard	N/A	N/A
Shed C_Inspection Room	N/A	N/A
Shed C_Inspection Room	N/A	N/A
Shed C_Cupboard	N/A	N/A
Shed C_Cupboard	N/A	N/A
Shed C_Cupboard	N/A	N/A
Shed C_Cat Holding Room	N/A	N/A
Shed C_Inspection Room	N/A	N/A
Shed C_Cupboard	N/A	N/A
Shed C_Inspection Room	N/A	N/A
Shed C_Cupboard	N/A	N/A
Shed C_Feed/Bedding Store	N/A	N/A
Shed C_Circulation	N/A	N/A
Shed C_Holding Area	N/A	N/A
Shed C_Circulation	N/A	N/A
Shed C_Holding Room	N/A	N/A
Shed C_Dog Holding Area	N/A	N/A
Shed C_Circulation	N/A	N/A

Criterion 4: The performance of the building, as built, should be consistent with the calculated 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]	14194.1	14194.1
External area [m^2]	29400.4	29400.4
Weather	LON	LON
Infiltration [m^3/hm^2@ 50Pa]	3	3
Average conductance [W/K]	8982.09	12612.3
Average U-value [W/m^2K]	0.31	0.43
Alpha value* [%]	10	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
27	**B1 Offices and Workshop businesses**
	B2 to B7 General Industrial and Special Industrial Groups
	B8 Storage or Distribution
	C1 Hotels
	C2 Residential Institutions: Hospitals and Care Homes
	C2 Residential Institutions: Residential schools
	C2 Residential Institutions: Universities and colleges
	C2A Secure Residential Institutions
	Residential spaces
	D1 Non-residential Institutions: Community/Day Centre
	D1 Non-residential Institutions: Libraries, Museums, and Galleries
	D1 Non-residential Institutions: Education
	D1 Non-residential Institutions: Primary Health Care Building
	D1 Non-residential Institutions: Crown and County Courts
	D2 General Assembly and Leisure, Night Clubs, and Theatres
	Others: Passenger terminals
	Others: Emergency services
73	**Others: Miscellaneous 24hr activities**
	Others: Car Parks 24 hrs
	Others: Stand alone utility block

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

	Actual	Notional
Heating	10.78	15.45
Cooling	3.91	5.17
Auxiliary	10.93	5.55
Lighting	21.62	35.62
Hot water	18.57	14.6
Equipment*	40.39	40.39
TOTAL**	**65.81**	**76.4**

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

Energy Production by Technology [kWh/m^2]

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

Energy & CO_2 Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m^2]	121.73	154.83
Primary energy* [kWh/m^2]	202.03	183.05
Total emissions [kg/m^2]	34.2	34.2

* 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 SSEEF	Cool SSEER	Heat gen SEFF	Cool gen SEER
[ST] Constant volume system (fixed fresh air rate), [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	191.4	102.9	14.5	9	49.9	3.68	3.18	4.2	7.01
	Notional	162.8	126.1	17.7	9.2	22.3	2.56	3.79	----	----
[ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	132.7	220.2	9.9	12.5	0	3.73	4.9	4	6.9
	Notional	176.7	268.7	19.2	19.7	0	2.56	3.79	----	----
[ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	38.3	57.4	2.5	5.4	2.9	4.29	2.94	4.6	4.14
	Notional	62.6	104.1	6.8	7.6	1.6	2.56	3.79	----	----
[ST] Other local room heater - unfanned, [HS] Direct or storage electric heater, [HFT] Electricity, [CFT] Electricity										
	Actual	308.1	0	107	0	0	0.8	0	1	0
	Notional	465.2	0	149.9	0	0	0.86	0	----	----
[ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	167.8	69.1	12.2	3.8	0	3.82	5.11	4.1	7.2
	Notional	221	110.5	24	8.1	0	2.56	3.79	----	----
[ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	110.5	141.4	8	8	0	3.82	4.9	4.1	6.9
	Notional	126.7	184.5	13.8	13.5	0	2.56	3.79	----	----
[ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	9.2	120.5	0.7	11.4	13.3	3.73	2.94	4	4.14
	Notional	29.9	183.4	3.2	13.4	4.4	2.56	3.79	----	----
[ST] Other local room heater - unfanned, [HS] Direct or storage electric heater, [HFT] Electricity, [CFT] Electricity										
	Actual	139.3	0	48.4	0	3.5	0.8	0	1	0
	Notional	136.1	0	43.9	0	2.5	0.86	0	----	----
[ST] Other local room heater - unfanned, [HS] Direct or storage electric heater, [HFT] Electricity, [CFT] Electricity										
	Actual	86.8	0	30.2	0	0.3	0.8	0	1	0
	Notional	124	0	39.9	0	0.2	0.86	0	----	----
[ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	44.8	66	2.9	6.2	5.9	4.29	2.94	4.6	4.14
	Notional	51.1	102	5.5	7.5	2.1	2.56	3.79	----	----
[ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	186	145.6	12.1	16.2	0	4.29	2.5	4.6	3.52
	Notional	162.3	224	17.6	16.4	0	2.56	3.79	----	----
[ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	6.8	111.4	0.5	10.7	14.2	3.73	2.88	4	4.06
	Notional	9.6	201.8	1	14.8	4.4	2.56	3.79	----	----
[ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	10.9	22.2	0.8	2.1	6.6	3.73	2.88	4	4.06
	Notional	29.1	36.6	3.2	2.7	2.3	2.56	3.79	----	----
[ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	49	95.4	3.2	9.8	5.5	4.29	2.71	4.6	3.82
	Notional	68	176.3	7.4	12.9	2.9	2.56	3.79	----	----
[ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	11.7	510.1	0.8	52.2	13.6	3.91	2.71	4.2	3.82
	Notional	8.6	571.1	0.9	41.9	5.4	2.56	3.79	----	----
[ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	34.3	86	2.2	8.8	8.3	4.29	2.71	4.6	3.82
	Notional	34.8	143.9	3.8	10.5	2.1	2.56	3.79	----	----

HVAC Systems Performance (cont.)

System Type		Heat dem MJ/m2	Cool dem MJ/m2	Heat con kWh/m2	Cool con kWh/m2	Aux con kWh/m2	Heat SSEEF	Cool SSEER	Heat gen SEFF	Cool gen SEER
[ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	11.5	25.4	1.7	4	0.5	1.86	1.78	2	2.5
	Notional	15.7	22.8	1.7	1.7	0.4	2.56	3.79	----	----
[ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	20.7	30.6	1.2	2.9	6.2	4.75	2.94	5.1	4.14
	Notional	82.8	88.3	9	6.5	2.2	2.56	3.79	----	----
[ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	27.9	14.2	1.8	1.6	4.4	4.29	2.5	4.6	3.52
	Notional	47	30.2	5.1	2.2	2.3	2.56	3.79	----	----
[ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	31.8	104.2	2.1	9.8	7.1	4.29	2.94	4.6	4.14
	Notional	67.7	190.4	7.4	14	3.8	2.56	3.79	----	----
[ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	11.6	103.2	0.9	10.6	14.2	3.73	2.71	4	3.82
	Notional	41.9	156.4	4.5	11.5	4.4	2.56	3.79	----	----
[ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	9.5	125.6	0.7	12.9	14.2	3.91	2.71	4.2	3.82
	Notional	35.7	195.5	3.9	14.3	4.4	2.56	3.79	----	----
[ST] Other local room heater - unfanned, [HS] Direct or storage electric heater, [HFT] Electricity, [CFT] Electricity										
	Actual	116.5	0	40.4	0	0.8	0.8	0	1	0
	Notional	180.4	0	58.1	0	0.5	0.86	0	----	----
[ST] Constant volume system (fixed fresh air rate), [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	90.9	24.4	7.1	2	42	3.58	3.32	4.2	7.01
	Notional	102	37.1	11.1	2.7	23.2	2.56	3.79	----	----
[ST] No Heating or Cooling										
	Actual	0	0	0	0	0	0	0	0	0
	Notional	0	0	0	0	0	0	0	----	----

Key to terms

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

Key Features

The Building Control Body is advised to give particular attention to items whose specifications are better than typically expected.

Building fabric

Element	$U_{i\text{-}Typ}$	$U_{i\text{-}Min}$	Surface where the minimum value occurs*
Wall	0.23	0.18	FF00001D:Surf[7]
Floor	0.2	0.18	WL000001:Surf[0]
Roof	0.15	0.16	WL000001:Surf[1]
Windows, roof windows, and rooflights	1.5	1.12	WL000001:Surf[2]
Personnel doors	1.5	1.6	WL000003:Surf[2]
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

$U_{i\text{-}Typ}$ = Typical individual element U-values [W/(m²K)] $U_{i\text{-}Min}$ = 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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