Energy Performance Certificate

Non-Domestic Building

HM Government

Duresme Court
Newcastle Road
Nevilles Cross
DURHAM
DH1 4FA

Certificate Reference Number:
0260-3972-0338-7930-7080

This certificate shows the energy rating of this building. It indicates the energy efficiency of the building fabric and the heating, ventilation, cooling and lighting systems. The rating is compared to two benchmarks for this type of building: one appropriate for new buildings and one appropriate for existing buildings. There is more advice on how to interpret this information in the guidance document *Energy Performance Certificates for the construction, sale and let of non-dwellings* available on the Government's website at www.gov.uk/government/collections/energy-performance-certificates.

Energy Performance Asset Rating

More energy efficient

A+

Net zero CO_2 emissions

A 0-25

B 26-50

C 51-75

D 76-100

E 101-125

F 126-150

G Over 150

25 This is how energy efficient the building is.

Less energy efficient

Technical information

Main heating fuel:	Natural Gas
Building environment:	Heating and Mechanical Ventilation
Total useful floor area (m^2):	2986.290
Building complexity (NOS level):	5
Building emission rate ($kgCO_2/m^2$ per year):	33.88
Primary energy use (kWh/m^2 per year):	190.25

Benchmarks

Buildings similar to this one could have ratings as follows:

33 If newly built

89 If typical of the existing stock

Administrative information

This is an Energy Performance Certificate as defined in the Energy Performance of Buildings Regulations 2012 as amended.

Assessment Software:	Virtual Environment v7.0.8 using calculation engine ApacheSim v7.0.8
Property Reference:	383727370000
Assessor Name:	Ben Duckworth of NOVO Integration Ltd
Assessor Number:	LCEA025862
Accreditation Scheme:	CIBSE Certification Limited
Employer/Trading Name:	NOVO Integration Ltd
Employer/Trading Address:	Oxford House, Oxford Road, Guiseley, Leeds. LS209AA
Issue Date:	21 Jun 2018
Valid Until:	20 Jun 2028 (unless superseded by a later certificate)
Related Party Disclosure:	Not related to the owner

Recommendations for improving the energy performance of the building are contained in the associated Recommendation Report: 9378-4036-0783-0700-9221

About this document and the data in it

This document has been produced following an energy assessment undertaken by a qualified Energy Assessor, accredited by CIBSE Certification Limited. You can obtain contact details of the Accreditation Scheme at www.cibsecertification.com.

A copy of this certificate has been lodged on a national register as a requirement under the Energy Performance of Buildings Regulations 2012 as amended. It will be made available via the online search function at www.ndepcregister.com. The certificate (including the building address) and other data about the building collected during the energy assessment but not shown on the certificate, for instance heating system data, will be made publicly available at www.opendatacommunities.org.

This certificate and other data about the building may be shared with other bodies (including government departments and enforcement agencies) for research, statistical and enforcement purposes. For further information about how data about the property are used, please visit www.ndepcregister.com. To opt out of having information about your building made publicly available, please visit www.ndepcregister.com/optout.

There is more information in the guidance document *Energy Performance Certificates for the construction, sale and let of non-dwellings* available on the Government website at: www.gov.uk/government/collections/energy-performance-certificates. It explains the content and use of this document and advises on how to identify the authenticity of a certificate and how to make a complaint.

Opportunity to benefit from a Green Deal on this property

The Green Deal can help you cut your energy bills by making energy efficiency improvements at no upfront costs. Use the Green Deal to find trusted advisors who will come to your property, recommend measures that are right for you and help you access a range of accredited installers. Responsibility for repayments stays with the property - whoever pays the energy bills benefits so they are responsible for the payments.

To find out how you could use Green Deal finance to improve your property please call 0300 123 1234.

BRUKL Output Document

HM Government

Compliance with England Building Regulations Part L 2013

Project name

Block B

As built

Date: Thu Jun 21 08:40:41 2018

Administrative information

Building Details

Address: DURHAM, DH1 4FA

Certification tool

Calculation engine: Apache

Calculation engine version: 7.0.8

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 7.0.8

BRUKL compliance check version: v5.3.a.0

Owner Details

Name: County Properties Group Limited

Telephone number: 0131 539 8855

Address: 56 George St, Edinburgh, EH2 2LR

Certifier details

Name: Ben Duckworth of NOVO Integration Ltd

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, $kgCO_2/m^2.annum$	44.8
Target CO_2 emission rate (TER), $kgCO_2/m^2.annum$	44.8
Building CO_2 emission rate (BER), $kgCO_2/m^2.annum$	33.9
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	0.15	0.26	04000025:Surf[6]
Floor	0.25	0.1	0.1	01000018:Surf[4]
Roof	0.25	0.16	0.16	03000000:Surf[6]
Windows***, roof windows, and rooflights	2.2	1.02	1.6	01000009: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

$U_{a\text{-}Limit}$ = 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	5

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	>0.95

1- Boiler with MVHR

	Heating efficiency	**Cooling efficiency**	**Radiant efficiency**	**SFP [W/(l/s)]**	**HR efficiency**
This system	0.98	-	0.2	0	0.9
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					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- Centralised Boiler

	Heating efficiency	**Cooling efficiency**	**Radiant efficiency**	**SFP [W/(l/s)]**	**HR efficiency**
This system	0.98	-	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					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"

1- CHECK2-CHP

	CHPQA quality index	**CHP electrical efficiency**
This building	0	0.31
Standard value	Not provided	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**
01 - Bed 01	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 01 - WC	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 02	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 02 - WC	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 03	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 03 WC	-	-	-	0.9	-	-	-	-	-	-	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
01 - Bed 04	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 04 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 05	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 05 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 06	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 06 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 07	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 07 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 08	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 08 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 09	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 09 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 10	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 10 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 11	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 11 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 12	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 12 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 13	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 13 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 14	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 14 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 15	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 15 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 16	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 16 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 17	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 17 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 18	-	-	-	0.9	-	-	-	-	-	-	N/A
01 - Bed 18 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 02	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 01	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 01 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 02 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 03	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 03 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 04	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 04 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 05	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 05 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 06	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 06 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 07	-	-	-	0.9	-	-	-	-	-	-	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 - Bed 07 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 08	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 08 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 09	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 09 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 10	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 10 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 11	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 11 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 12	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 12 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 13	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 13 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 14	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 14 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 15	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 15 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 16	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 16 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 17	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 17 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 18	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 18 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 19	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 19 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 20	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 20 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 21	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 21 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 22	-	-	-	0.9	-	-	-	-	-	-	N/A
02 - Bed 22 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 01	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 01 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 02	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 02 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 03	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 03 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 04	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 04 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 05	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 05 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 06	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 06 WC	-	-	-	0.9	-	-	-	-	-	-	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
03 - Bed 07	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 07 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 08	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 08 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 09	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 09 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 10	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 10 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 11	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 11 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 12	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 12 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 13	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 13 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 14	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 14 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 15	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 15 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 16	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 16 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 17	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 17 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 18	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 18 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 19	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 19 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 20	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 20 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 21	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 21 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 22	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 22 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 23	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 23 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 24	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 24 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 25	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 25 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 26	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 26 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 27	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 27 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
03 - Bed 28	-	-	-	0.9	-	-	-	-	-	-	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
03 - Bed 28 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 01	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 01 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 02	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 02 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 03	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 03 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 04	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 04 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 05	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 05 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 06	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 06 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 07	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 07 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 08	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 08 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 09	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 09 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 10	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 10 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 11	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 11 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 12	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 12 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 13	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 13 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 14	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 14 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 15	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 15 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 16	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 16 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 17	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 17 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 18	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 18 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 19	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 19 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 20	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 21	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 21 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 22	-	-	-	0.9	-	-	-	-	-	-	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
04 - Bed 22 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 23	-	-	-	0.9	-	-	-	-	-	-	N/A
04 - Bed 23 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
04 Bed 20 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
05 - Bed 01	-	-	-	0.9	-	-	-	-	-	-	N/A
05 - Bed 01 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
05 - Bed 02	-	-	-	0.9	-	-	-	-	-	-	N/A
05 - Bed 02 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
05 - Bed 03	-	-	-	0.9	-	-	-	-	-	-	N/A
05 - Bed 03 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
05 - Bed 04	-	-	-	0.9	-	-	-	-	-	-	N/A
05 - Bed 04 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
05 - Bed 05	-	-	-	0.9	-	-	-	-	-	-	N/A
05 - Bed 05 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
05 - Bed 06	-	-	-	0.9	-	-	-	-	-	-	N/A
05 - Bed 06 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
05 - Bed 07	-	-	-	0.9	-	-	-	-	-	-	N/A
05 - Bed 07 WC	-	-	-	0.9	-	-	-	-	-	-	N/A
05 - Bed 08	-	-	-	0.9	-	-	-	-	-	-	N/A
05 - Bed 08 WC	-	-	-	0.9	-	-	-	-	-	-	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	
01 - Bed 01	-	207	-	24
01 - Bed 01 - WC	-	253	-	13
01 - Bed 02	-	207	-	23
01 - Bed 02 - WC	-	253	-	13
01 - Bed 03	-	207	-	23
01 - Bed 03 WC	-	253	-	13
01 - Bed 04	-	207	-	23
01 - Bed 04 WC	-	253	-	13
01 - Bed 05	-	207	-	23
01 - Bed 05 WC	-	253	-	13
01 - Bed 06	-	197	-	26
01 - Bed 06 WC	-	253	-	13
01 - Bed 07	-	197	-	26
01 - Bed 07 WC	-	253	-	13
01 - Bed 08	-	205	-	24
01 - Bed 08 WC	-	253	-	13
01 - Bed 09	-	197	-	26
01 - Bed 09 WC	-	253	-	13
01 - Bed 10	-	197	-	26

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
01 - Bed 10 WC	-	253	-	13
01 - Bed 11	-	201	-	26
01 - Bed 11 WC	-	253	-	13
01 - Bed 12	-	200	-	26
01 - Bed 12 WC	-	253	-	13
01 - Bed 13	-	201	-	26
01 - Bed 13 WC	-	253	-	13
01 - Bed 14	-	198	-	26
01 - Bed 14 WC	-	253	-	13
01 - Bed 15	-	198	-	26
01 - Bed 15 WC	-	253	-	13
01 - Bed 16	-	210	-	25
01 - Bed 16 WC	-	163	-	30
01 - Bed 17	-	207	-	23
01 - Bed 17 WC	-	253	-	13
01 - Bed 18	-	194	-	29
01 - Bed 18 WC	-	253	-	13
01 - Communal Lounge	-	184	-	415
01 - Corridor 01	-	120	-	106
01 - Corridor 03	-	123	-	65
01 - Entrance Lobby 01	-	160	-	21
01 - Entrance Lobby 02	-	121	-	41
01 - Gym	-	216	-	113
01 - Kitchenette	-	125	-	24
01 - Laundry	-	87	-	65
01 - Office	-	91	-	41
01 - Stair 01	-	101	-	52
01 - Stair 02	-	99	-	49
01 - Stair 03	-	83	-	62
01 - Stair 04	-	100	-	47
01 - Store	-	139	-	15
01 - Store 02	-	116	-	21
01 - WC	-	134	-	20
01 Corridor 02	-	111	-	73
01 Lift	-	108	-	23
01 Riser	-	174	-	1
02 - Bed 02	-	207	-	23
02 - Bed 01	-	207	-	24
02 - Bed 01 WC	-	253	-	13
02 - Bed 02 WC	-	253	-	13
02 - Bed 03	-	207	-	23
02 - Bed 03 WC	-	253	-	13
02 - Bed 04	-	207	-	23

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
02 - Bed 04 WC	-	253	-	13
02 - Bed 05	-	207	-	23
02 - Bed 05 WC	-	253	-	13
02 - Bed 06	-	198	-	26
02 - Bed 06 WC	-	253	-	13
02 - Bed 07	-	209	-	21
02 - Bed 07 WC	-	253	-	13
02 - Bed 08	-	209	-	21
02 - Bed 08 WC	-	253	-	13
02 - Bed 09	-	198	-	26
02 - Bed 09 WC	-	253	-	13
02 - Bed 10	-	197	-	26
02 - Bed 10 WC	-	253	-	13
02 - Bed 11	-	197	-	26
02 - Bed 11 WC	-	253	-	13
02 - Bed 12	-	205	-	24
02 - Bed 12 WC	-	253	-	13
02 - Bed 13	-	197	-	26
02 - Bed 13 WC	-	253	-	13
02 - Bed 14	-	197	-	26
02 - Bed 14 WC	-	253	-	13
02 - Bed 15	-	201	-	26
02 - Bed 15 WC	-	253	-	13
02 - Bed 16	-	200	-	26
02 - Bed 16 WC	-	253	-	13
02 - Bed 17	-	201	-	26
02 - Bed 17 WC	-	253	-	13
02 - Bed 18	-	198	-	26
02 - Bed 18 WC	-	253	-	13
02 - Bed 19	-	198	-	26
02 - Bed 19 WC	-	253	-	13
02 - Bed 20	-	210	-	25
02 - Bed 20 WC	-	163	-	30
02 - Bed 21	-	207	-	23
02 - Bed 21 WC	-	253	-	13
02 - Bed 22	-	194	-	29
02 - Bed 22 WC	-	253	-	13
02 - Cinema	-	196	-	49
02 - Corridor 01	-	120	-	106
02 - Corridor 02	-	111	-	73
02 - Corridor 03	-	110	-	145
02 - Corridor 04	-	123	-	65
02 - Lift	-	108	-	23

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
02 - Plantroom 01	-	102	-	35
02 - Plantroom 02	-	146	-	19
02 - Quiet Study Lounge	-	187	-	113
02 - Quiet Study Room	-	219	-	26
02 - Riser	-	174	-	1
02 - Stair 01	-	101	-	52
02 - Stair 02	-	99	-	49
02 - Stair 03	-	100	-	48
02 - Stair 04	-	100	-	47
02 - Store 01	-	139	-	15
03 - Bed 01	-	207	-	24
03 - Bed 01 WC	-	253	-	13
03 - Bed 02	-	207	-	23
03 - Bed 02 WC	-	253	-	13
03 - Bed 03	-	207	-	23
03 - Bed 03 WC	-	253	-	13
03 - Bed 04	-	207	-	23
03 - Bed 04 WC	-	253	-	13
03 - Bed 05	-	207	-	23
03 - Bed 05 WC	-	253	-	13
03 - Bed 06	-	198	-	26
03 - Bed 06 WC	-	253	-	13
03 - Bed 07	-	198	-	26
03 - Bed 07 WC	-	253	-	13
03 - Bed 08	-	198	-	26
03 - Bed 08 WC	-	253	-	13
03 - Bed 09	-	196	-	27
03 - Bed 09 WC	-	253	-	13
03 - Bed 10	-	198	-	26
03 - Bed 10 WC	-	253	-	13
03 - Bed 11	-	196	-	27
03 - Bed 11 WC	-	253	-	13
03 - Bed 12	-	198	-	26
03 - Bed 12 WC	-	253	-	13
03 - Bed 13	-	198	-	26
03 - Bed 13 WC	-	253	-	13
03 - Bed 14	-	198	-	26
03 - Bed 14 WC	-	253	-	13
03 - Bed 15	-	197	-	26
03 - Bed 15 WC	-	253	-	13
03 - Bed 16	-	197	-	26
03 - Bed 16 WC	-	253	-	13
03 - Bed 17	-	205	-	24

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
03 - Bed 17 WC	-	253	-	13
03 - Bed 18	-	197	-	26
03 - Bed 18 WC	-	253	-	13
03 - Bed 19	-	197	-	26
03 - Bed 19 WC	-	253	-	13
03 - Bed 20	-	201	-	26
03 - Bed 20 WC	-	253	-	13
03 - Bed 21	-	200	-	26
03 - Bed 21 WC	-	253	-	13
03 - Bed 22	-	200	-	26
03 - Bed 22 WC	-	253	-	13
03 - Bed 23	-	207	-	23
03 - Bed 23 WC	-	253	-	13
03 - Bed 24	-	207	-	23
03 - Bed 24 WC	-	253	-	13
03 - Bed 25	-	207	-	23
03 - Bed 25 WC	-	253	-	13
03 - Bed 26	-	208	-	23
03 - Bed 26 WC	-	253	-	13
03 - Bed 27	-	203	-	26
03 - Bed 27 WC	-	253	-	13
03 - Bed 28	-	190	-	32
03 - Bed 28 WC	-	253	-	13
03 - Corridor 01	-	120	-	106
03 - Corridor 02	-	111	-	73
03 - Corridor 03	-	111	-	160
03 - Corridor 04	-	123	-	65
03 - Lift	-	108	-	23
03 - Plantroom 01	-	102	-	35
03 - Plantroom 02	-	146	-	19
03 - Riser	-	174	-	1
03 - Stair 01	-	101	-	52
03 - Stair 03	-	100	-	48
03 - Stair 04	-	100	-	47
03 - Staor 02	-	99	-	49
03 - Store 01	-	139	-	15
04 - Bed 01	-	207	-	24
04 - Bed 01 WC	-	253	-	13
04 - Bed 02	-	207	-	23
04 - Bed 02 WC	-	253	-	13
04 - Bed 03	-	207	-	23
04 - Bed 03 WC	-	253	-	13
04 - Bed 04	-	207	-	23

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
04 - Bed 04 WC	-	253	-	13
04 - Bed 05	-	207	-	23
04 - Bed 05 WC	-	253	-	13
04 - Bed 06	-	198	-	26
04 - Bed 06 WC	-	253	-	13
04 - Bed 07	-	198	-	26
04 - Bed 07 WC	-	253	-	13
04 - Bed 08	-	198	-	26
04 - Bed 08 WC	-	253	-	13
04 - Bed 09	-	196	-	27
04 - Bed 09 WC	-	253	-	13
04 - Bed 10	-	198	-	26
04 - Bed 10 WC	-	253	-	13
04 - Bed 11	-	198	-	26
04 - Bed 11 WC	-	253	-	13
04 - Bed 12	-	198	-	26
04 - Bed 12 WC	-	253	-	13
04 - Bed 13	-	197	-	26
04 - Bed 13 WC	-	253	-	13
04 - Bed 14	-	197	-	26
04 - Bed 14 WC	-	253	-	13
04 - Bed 15	-	200	-	26
04 - Bed 15 WC	-	253	-	13
04 - Bed 16	-	200	-	26
04 - Bed 16 WC	-	253	-	13
04 - Bed 17	-	200	-	26
04 - Bed 17 WC	-	253	-	13
04 - Bed 18	-	207	-	23
04 - Bed 18 WC	-	253	-	13
04 - Bed 19	-	207	-	23
04 - Bed 19 WC	-	253	-	13
04 - Bed 20	-	207	-	23
04 - Bed 21	-	208	-	23
04 - Bed 21 WC	-	253	-	13
04 - Bed 22	-	203	-	26
04 - Bed 22 WC	-	253	-	13
04 - Bed 23	-	190	-	32
04 - Bed 23 WC	-	253	-	13
04 - Corridor 01	-	120	-	106
04 - Corridor 02	-	111	-	73
04 - Corridor 03	-	110	-	152
04 - Corridor 04	-	123	-	62
04 - Lift	-	108	-	23

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
04 - Plantroom 01	-	102	-	35
04 - Plantroom 02	-	146	-	19
04 - Riser	-	174	-	1
04 - Stair 01	-	101	-	52
04 - Stair 02	-	99	-	49
04 - Stair 03	-	81	-	48
04 - Stair 04	-	81	-	47
04 - Store 01	-	139	-	15
04 Bed 20 WC	-	253	-	13
05 - Bed 01	-	207	-	24
05 - Bed 01 WC	-	253	-	13
05 - Bed 02	-	207	-	23
05 - Bed 02 WC	-	253	-	13
05 - Bed 03	-	207	-	23
05 - Bed 03 WC	-	253	-	13
05 - Bed 04	-	207	-	23
05 - Bed 04 WC	-	253	-	13
05 - Bed 05	-	207	-	23
05 - Bed 05 WC	-	253	-	13
05 - Bed 06	-	200	-	26
05 - Bed 06 WC	-	253	-	13
05 - Bed 07	-	200	-	26
05 - Bed 07 WC	-	253	-	13
05 - Bed 08	-	203	-	26
05 - Bed 08 WC	-	253	-	13
05 - Corridor 01	-	116	-	100
05 - Corridor 02	-	110	-	73
05 - Corridor 03	-	103	-	30
05 - Lift	-	94	-	23
05 - Riser	-	174	-	0
05 - Riser 01	-	174	-	1
05 - Stair 01	-	83	-	52
05 - Stair 02	-	95	-	49
05 - Store	-	117	-	15

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?
01 - Bed 01	NO (-39.9%)	NO
01 - Bed 02	NO (-18.2%)	NO
01 - Bed 03	NO (-18.8%)	NO
01 - Bed 04	NO (-39.6%)	NO
01 - Bed 05	NO (-39.7%)	NO
01 - Bed 06	NO (-40.4%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
01 - Bed 07	NO (-26.9%)	NO
01 - Bed 08	NO (-85.6%)	NO
01 - Bed 09	NO (-56.1%)	NO
01 - Bed 10	NO (-55.5%)	NO
01 - Bed 11	NO (-73.7%)	NO
01 - Bed 12	NO (-44.1%)	NO
01 - Bed 13	NO (-67.9%)	NO
01 - Bed 14	NO (-55.5%)	NO
01 - Bed 15	NO (-54.9%)	NO
01 - Bed 16	NO (-62.2%)	NO
01 - Bed 17	NO (-54.9%)	NO
01 - Bed 18	NO (-80.3%)	NO
02 - Bed 02	NO (-18.2%)	NO
02 - Bed 01	NO (-39.9%)	NO
02 - Bed 03	NO (-18.8%)	NO
02 - Bed 04	NO (-39.6%)	NO
02 - Bed 05	NO (-39.7%)	NO
02 - Bed 06	NO (-12.5%)	NO
02 - Bed 07	NO (-33.3%)	NO
02 - Bed 08	NO (-51.8%)	NO
02 - Bed 09	NO (-36.7%)	NO
02 - Bed 10	NO (-40.4%)	NO
02 - Bed 11	NO (-40.4%)	NO
02 - Bed 12	NO (-85.6%)	NO
02 - Bed 13	NO (-55.5%)	NO
02 - Bed 14	NO (-55.5%)	NO
02 - Bed 15	NO (-73.7%)	NO
02 - Bed 16	NO (-44.1%)	NO
02 - Bed 17	NO (-67.9%)	NO
02 - Bed 18	NO (-54.9%)	NO
02 - Bed 19	NO (-55.5%)	NO
02 - Bed 20	NO (-62.2%)	NO
02 - Bed 21	NO (-54.9%)	NO
02 - Bed 22	NO (-80.3%)	NO
03 - Bed 01	NO (-39.9%)	NO
03 - Bed 02	NO (-18.2%)	NO
03 - Bed 03	NO (-18.8%)	NO
03 - Bed 04	NO (-39.6%)	NO
03 - Bed 05	NO (-39.7%)	NO
03 - Bed 06	NO (-12.5%)	NO
03 - Bed 07	NO (-43.3%)	NO
03 - Bed 08	NO (-44.1%)	NO
03 - Bed 09	NO (-45.3%)	NO
03 - Bed 10	NO (-72.6%)	NO
03 - Bed 11	NO (-60.4%)	NO
03 - Bed 12	NO (-59.6%)	NO
03 - Bed 13	NO (-59%)	NO
03 - Bed 14	NO (-36.7%)	NO
03 - Bed 15	NO (-40.4%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
03 - Bed 16	NO (-35.6%)	NO
03 - Bed 17	NO (-75.9%)	NO
03 - Bed 18	NO (-56.1%)	NO
03 - Bed 19	NO (-55.5%)	NO
03 - Bed 20	NO (-73.7%)	NO
03 - Bed 21	NO (-47.9%)	NO
03 - Bed 22	NO (-58.5%)	NO
03 - Bed 23	NO (-55%)	NO
03 - Bed 24	NO (-40.1%)	NO
03 - Bed 25	NO (-55%)	NO
03 - Bed 26	NO (-38.5%)	NO
03 - Bed 27	NO (-60.9%)	NO
03 - Bed 28	NO (-69.9%)	NO
04 - Bed 01	NO (-39.9%)	NO
04 - Bed 02	NO (-18.2%)	NO
04 - Bed 03	NO (-18.8%)	NO
04 - Bed 04	NO (-39.6%)	NO
04 - Bed 05	NO (-39.7%)	NO
04 - Bed 06	NO (-12.5%)	NO
04 - Bed 07	NO (-53.1%)	NO
04 - Bed 08	NO (-69.6%)	NO
04 - Bed 09	NO (-82.2%)	NO
04 - Bed 10	NO (-66.1%)	NO
04 - Bed 11	NO (-59%)	NO
04 - Bed 12	NO (-36.7%)	NO
04 - Bed 13	NO (-50.7%)	NO
04 - Bed 14	NO (-73.1%)	NO
04 - Bed 15	NO (-84%)	NO
04 - Bed 16	NO (-44.1%)	NO
04 - Bed 17	NO (-58.5%)	NO
04 - Bed 18	NO (-55%)	NO
04 - Bed 19	NO (-40.1%)	NO
04 - Bed 20	NO (-55%)	NO
04 - Bed 21	NO (-38.5%)	NO
04 - Bed 22	NO (-60.9%)	NO
04 - Bed 23	NO (-69.9%)	NO
05 - Bed 01	NO (-69.2%)	NO
05 - Bed 02	NO (-32.4%)	NO
05 - Bed 03	NO (-18.8%)	NO
05 - Bed 04	NO (-39.6%)	NO
05 - Bed 05	NO (-72.3%)	NO
05 - Bed 06	NO (-76.8%)	NO
05 - Bed 07	NO (-76.8%)	NO
05 - Bed 08	NO (-87.8%)	NO

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?	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]	2986.3	2986.3
External area [m^2]	3386.9	3386.9
Weather	NEW	NEW
Infiltration [m^3/hm^2@ 50Pa]	5	3
Average conductance [W/K]	859.9	1687.24
Average U-value [W/m^2K]	0.25	0.5
Alpha value* [%]	10.56	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
	C1 Hotels
	C2 Residential Institutions: Hospitals and Care Homes
	C2 Residential Institutions: Residential schools
100	**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
	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	35.65	45.11
Cooling	0	0
Auxiliary	9.54	6.41
Lighting	7.07	11.37
Hot water	140.5	120.55
Equipment*	10.51	10.51
TOTAL**	**168.54**	**183.45**

* 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/m^2]

	Actual	Notional
Photovoltaic systems	0	0
Wind turbines	0	0
CHP generators	24.21	0
Solar thermal systems	0	0

Energy & CO_2 Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m^2]	98.11	140.01
Primary energy* [kWh/m^2]	190.28	255.35
Total emissions [kg/m^2]	33.9	44.8

* 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 SSEEF	Cool SSEER	Heat gen SEFF	Cool gen SEER
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	58.2	0	18.5	0	3.9	0.87	0	0.98	0
	Notional	0	0	0	0	0	0	0	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	114.6	0	24.7	0	11.9	0.87	0	0.98	0
	Notional	107.9	0	34.8	0	1.8	0.86	0	----	----
[ST] No Heating or Cooling										
	Actual	0	0	0	0	0	0	0	0	0
	Notional	153.2	0	49.4	0	8.3	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 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	0.14	01000018:Surf[3]
Floor	0.2	0.1	01000018:Surf[4]
Roof	0.15	0.16	03000000:Surf[6]
Windows, roof windows, and rooflights	1.5	1	01000018: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

$U_{i\text{-}Typ}$ = 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	5