

## Project name

**BGY Plot 01**

As designed

Date: Tue Jan 23 10:42:58 2024

## Administrative information

## Building Details

Address: Address 1, London, Postcode

## Certifier details

Name: Name

Telephone number: Phone

Address: Street Address, City, Postcode

## Certification tool

Calculation engine: Apache

Calculation engine version: 7.0.19

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 7.0.19

BRUKL compliance module version: v6.1.e.0

Foundation area [m<sup>2</sup>]: 2421.92The CO<sub>2</sub> emission and primary energy rates of the building must not exceed the targets

Target CO <sub>2</sub> emission rate (TER), kgCO <sub>2</sub> /m <sup>2</sup> annum	5
Building CO <sub>2</sub> emission rate (BER), kgCO <sub>2</sub> /m <sup>2</sup> annum	3.77
Target primary energy rate (TPER), kWh <sub>PE</sub> /m <sup>2</sup> annum	44.95
Building primary energy rate (BPER), kWh <sub>PE</sub> /m <sup>2</sup> annum	41.68
Do the building's emission and primary energy rates exceed the targets?	BER =< TER   BPER =< TPER

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

Fabric element	U <sub>a-Limit</sub>	U <sub>a-Calc</sub>	U <sub>i-Calc</sub>	First surface with maximum value
Walls*	0.26	0.18	0.19	PL00000B:Surf[0]
Floors	0.18	0.13	0.18	L0000005:Surf[4]
Pitched roofs	0.16	-	-	No pitched roofs in building
Flat roofs	0.18	0.11	0.11	PL000071:Surf[5]
Windows** and roof windows	1.6	1.18	1.21	PL000208:Surf[3]
Rooflights***	2.2	-	-	No roof lights in building
Personnel doors <sup>^</sup>	1.6	1.6	1.6	PL000175:Surf[1]
Vehicle access & similar large doors	1.3	-	-	No vehicle access doors in building
High usage entrance doors	3	-	-	No high usage entrance doors in building

U<sub>a-Limit</sub> = Limiting area-weighted average U-values [W/(m<sup>2</sup>K)]U<sub>i-Calc</sub> = Calculated maximum individual element U-values [W/(m<sup>2</sup>K)]U<sub>a-Calc</sub> = Calculated area-weighted average U-values [W/(m<sup>2</sup>K)]

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

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

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

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

Air permeability	Limiting standard	This building
m <sup>3</sup> /(h.m <sup>2</sup> ) at 50 Pa	8	3

## Building services

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

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

### 1- DHN 01 Rads + NV

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
<b>This system</b>	1	-	0.3	-	-
<b>Standard value</b>	N/A	N/A	N/A	N/A	N/A
<b>Automatic monitoring &amp; targeting with alarms for out-of-range values for this HVAC system</b>					YES

### 2- DHN 02 Rads + MVHR

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
<b>This system</b>	1	-	0.3	-	0.85
<b>Standard value</b>	N/A	N/A	N/A	N/A	N/A
<b>Automatic monitoring &amp; targeting with alarms for out-of-range values for this HVAC system</b>					YES

### 3- DHN 03 FCU + MVHR

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
<b>This system</b>	1	5.46	0	1.6	0.85
<b>Standard value</b>	N/A	N/A	N/A	2^	N/A
<b>Automatic monitoring &amp; targeting with alarms for out-of-range values for this HVAC system</b>					YES
^ Limiting SFP may be increased by the amounts specified in the Approved Documents if the installation includes particular components.					

### 4- 04 Split system + Supply

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
<b>This system</b>	3.26	5	-	-	0.85
<b>Standard value</b>	2.5*	5	N/A	N/A	N/A
<b>Automatic monitoring &amp; targeting with alarms for out-of-range values for this HVAC system</b>					YES
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					

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

### 1- District heating network

	Emission factor [kgCO <sub>2</sub> /kWh]	Primary energy factor [kWh <sub>PE</sub> /kWh]
<b>This building</b>	0.094	1.042
<b>Standard value</b>	0.35	1.45

### Zone-level mechanical ventilation, exhaust, and terminal units

ID	System type in the Approved Documents
A	Local supply or extract ventilation units
B	Zonal supply system where the fan is remote from the zone
C	Zonal extract system where the fan is remote from the zone
D	Zonal balanced supply and extract ventilation system
E	Local balanced supply and extract ventilation units
F	Other local ventilation units
G	Fan assisted terminal variable air volume units
H	Fan coil units
I	Kitchen extract with the fan remote from the zone and a grease filter
NB: Limiting SFP may be increased by the amounts specified in the Approved Documents if the installation includes particular components.	

Zone name	SFP [W/(l/s)]									HR efficiency	
	ID of system type	A	B	C	D	E	F	G	H		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
PlotA-L07-AWC-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L07-AWC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L07-AWC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L07-Loggia	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L07-perimeter-02	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L07-perimeter-03	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L07-perimeter-04	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L07-perimeter-05	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L07-perimeter-07	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L07-perimeter-08	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L07-perimeter-09	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L07-perimeter-10	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L07-perimeter-11	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L07-WC-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L07-WC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L07-WC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L08-AWC-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L08-AWC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L08-AWC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L08-Loggia	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L08-perimeter-02	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L08-perimeter-03	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L08-perimeter-04	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L08-perimeter-05	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L08-perimeter-07	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L08-perimeter-08	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L08-perimeter-10	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L08-perimeter-11	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L08-WC-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L08-WC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L08-WC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L09-AWC-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L09-AWC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L09-AWC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L09-Loggia	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L09-perimeter-02	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L09-perimeter-03	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L09-perimeter-04	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L09-perimeter-05	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L09-perimeter-07	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L09-perimeter-08	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L09-perimeter-10	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L09-perimeter-11	-	-	-	-	-	-	-	0.2	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
	ID of system type	A	B	C	D	E	F	G	H		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
PlotA-L09-WC-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L09-WC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L09-WC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L10-AWC-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L10-AWC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L10-AWC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L10-Loggia	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L10-perimeter-02	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L10-perimeter-03	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L10-perimeter-04	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L10-perimeter-05	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L10-perimeter-07	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L10-perimeter-10	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L10-perimeter-11	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L10-WC-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L10-WC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L10-WC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L11-AWC-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L11-AWC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L11-AWC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L11-Loggia	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L11-perimeter-02	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L11-perimeter-03	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L11-perimeter-04	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L11-perimeter-05	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L11-perimeter-07	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L11-perimeter-10	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L11-perimeter-11	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L11-WC-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L11-WC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L11-WC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L12-AWC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L12-AWC-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L12-OfficeCore	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L12-OfficeCore	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L12-perimeter-01	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L12-perimeter-02	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L12-perimeter-03	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L12-perimeter-04	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L12-Perimeter-05	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L12-WC-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L12-WC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L13-AWC-03	-	-	-	1.6	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
	ID of system type	A	B	C	D	E	F	G	H		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
PlotA-L13-AWC-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L13-OfficeCore	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L13-perimeter-01	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L13-perimeter-02	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L13-perimeter-04	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L13-perimeter-05	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L13-WC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L14-AWC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L14-OfficeCore	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L14-OfficeCore	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L14-perimeter-04	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L14-perimeter-05	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L14-perimeter-06	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L14-perimeter-07	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L14-WC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L15-AWC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L15-AWC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L15-OfficeCore	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L15-OfficeCore	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L15-perimeter-04	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L15-perimeter-05	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L15-perimeter-06	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L15-perimeter-07	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L15-WC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L15-WC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L14-AWC-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L14-wc-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L13-WC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L12-WC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L10-perimeter-06	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L04-Office Core-01	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L04-Office Perim-01	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L11-perimeter-06	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L13-OfficeCore	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L08-Office Perimeter	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L09-Office Perimeter	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L09-officeCore	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L01-mShowers	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L01-mShowersCirc	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L01-mShowers	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L01-fShowersCirc	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L01-fShowers	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L01-fShowers	-	-	-	1.6	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
	ID of system type	A	B	C	D	E	F	G	H		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
PlotA-L01-fShowersCirc	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L01-fShowers	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L05M-exchangeVoid-04	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L06-WC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L06-WC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L06-WC-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L06-perimeter-11	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L06-perimeter-10	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L06-perimeter-09	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L06-perimeter-08	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L06-perimeter-07	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L06-perimeter-06	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L06-perimeter-05	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L06-perimeter-04	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L06-perimeter-02	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L06-AWC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L06-AWC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L06-AWC-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L05-WC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L05-WC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L05-WC-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L05-perimeter-06	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L05-Perimeter-05	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L05-Perimeter-03	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L05M-WC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L05M-WC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L05M-WC-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L05M-exchangeVoid-02	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L05M-AWC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L05M-AWC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L05M-AWC-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L05-AWC-03	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L05-AWC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L05-AWC-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L04-WC-04	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L04-WC-04	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L04-WC-02	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L04-Perimeter-02	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L04-OfficeCore	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L04-Office-01	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L04-Incubator-03	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L04-commsMain	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L04-AWC-04	-	-	-	1.6	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]										HR efficiency	
	ID of system type	A	B	C	D	E	F	G	H	I		
	Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
PlotA-L04-AWC-02	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L04-AWC-01	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L03-WC-04	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L03-WC-04	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L03-WC-02	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L03-perimeter-02	-	-	-	-	-	-	-	0.2	-	-	-	N/A
PlotA-L03-perimeter-01	-	-	-	-	-	-	-	0.2	-	-	-	N/A
PlotA-L03-Office-01	-	-	-	-	-	-	-	0.2	-	-	-	N/A
PlotA-L03-Incubator-03	-	-	-	-	-	-	-	0.2	-	-	-	N/A
PlotA-L03-Incubator-01	-	-	-	-	-	-	-	0.2	-	-	-	N/A
PlotA-L03-AWC-04	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L03-AWC-02	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L03-AWC-01	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L02-WC-04	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L02-WC-04	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L02-WC-02	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L02-perimeter-02	-	-	-	-	-	-	-	0.2	-	-	-	N/A
PlotA-L02-perimeter-01	-	-	-	-	-	-	-	0.2	-	-	-	N/A
PlotA-L02-Office-01	-	-	-	-	-	-	-	0.2	-	-	-	N/A
PlotA-L02-Incubator-03	-	-	-	-	-	-	-	0.2	-	-	-	N/A
PlotA-L02-Incubator-01	-	-	-	-	-	-	-	0.2	-	-	-	N/A
PlotA-L02-AWC-04	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L02-AWC-02	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L02-AWC-01	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L01-wc-07	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L01-wc-06	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L01-wc-05	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L01-wc-04	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L01-wc-03	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L01-wc-02	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L01-wc-01	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L01-shower-04	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L01-shower-03	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L01-shower-02	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L01-shower-01	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L01-perimeter-02	-	-	-	-	-	-	-	0.2	-	-	-	N/A
PlotA-L01-perimeter-01	-	-	-	-	-	-	-	0.2	-	-	-	N/A
PlotA-L01-Office-01	-	-	-	-	-	-	-	0.2	-	-	-	N/A
PlotA-L01-mShowersCirc	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L01-mShowers	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L01-AWC-02	-	-	-	1.6	-	-	-	-	-	-	-	N/A
PlotA-L00-Incubator-03	-	-	-	-	-	-	-	0.2	-	-	-	N/A
PlotA-L00-CommsIntake-02	-	-	-	1.6	-	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
	ID of system type	A	B	C	D	E	F	G	H		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
PlotA-L00-CommsIntake-01	-	-	-	1.6	-	-	-	-	-	-	N/A
PlotA-L05-Perimeter-04	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L02-Incubator-02	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L03-Incubator-02	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L04-Incubator-02	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-Lo5-OfficeCore	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L06-OfficeCore	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L06-perimeter-01	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L06-Loggia	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L06-perimeter-03	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L06-perimeter-13	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L06-perimeter-11	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L09-perimeter-12	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L09-perimeter-11	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L09-perimeter-01	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L09-perimeter-13	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L10-Perimeter 01	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L04-Perimeter-01	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L04-incubator-01	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L07-officeCore	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L07-perimeter-11	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L08-Perimeter 01	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L08-Perimeter 02	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L08-perimeter-11	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L08-perimeter-11	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L08-officeCore	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L09-Perimeter 01	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L08-perimeter-01	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L10-perimeter-01	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L11-Perimeter 01	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L10-perimeter-11	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L11-OfficeCore	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L11-perimeter-13	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L12-Perimeter 01	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L12-Perimeter 02	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L11-perimeter-11	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L10-OfficeCore	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L05-Perimeter	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L06-Perimeter 02	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L05M-Open Plan Office	-	-	-	-	-	-	-	0.2	-	-	N/A
PlotA-L06-Perimeter 01	-	-	-	-	-	-	-	0.2	-	-	N/A



General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m <sup>2</sup> ]
	<b>Standard value</b>	95	80	0.3
PlotA-L07-Corridor		110	-	-
PlotA-L07-AWC-01		110	-	-
PlotA-L07-AWC-02		110	-	-
PlotA-L07-AWC-03		110	-	-
PlotA-L07-cleaner-01		110	-	-
PlotA-L07-cleaner-02		110	-	-
PlotA-L07-ffLobby-01		110	-	-
PlotA-L07-ffLobby-02		110	-	-
PlotA-L07-ffLobby-03		110	-	-
PlotA-L07-liftLobby-01		110	-	-
PlotA-L07-liftLobby-02		110	-	-
PlotA-L07-lobby-01		110	-	-
PlotA-L07-lobby-02		110	-	-
PlotA-L07-lobby-03		110	-	-
PlotA-L07-lobby-04		110	-	-
PlotA-L07-lobby-05		110	-	-
PlotA-L07-Loggia		110	-	-
PlotA-L07-perimeter-02		122	-	-
PlotA-L07-perimeter-03		117	-	-
PlotA-L07-perimeter-04		116	-	-
PlotA-L07-perimeter-05		119	-	-
PlotA-L07-perimeter-07		120	-	-
PlotA-L07-perimeter-08		119	-	-
PlotA-L07-perimeter-09		119	-	-
PlotA-L07-perimeter-10		121	-	-
PlotA-L07-perimeter-11		125	-	-
PlotA-L07-Stair-01		110	-	-
PlotA-L07-Stair-02		110	-	-
PlotA-L07-Stair-03		110	-	-
PlotA-L07-Stair-04		110	-	-
PlotA-L07-WC-01		110	-	-
PlotA-L07-WC-02		110	-	-
PlotA-L07-WC-03		110	-	-
PlotA-L08-Corridor		110	-	-
PlotA-L08-AWC-01		110	-	-
PlotA-L08-AWC-02		110	-	-
PlotA-L08-AWC-03		110	-	-
PlotA-L08-cleaner-01		110	-	-
PlotA-L08-cleaner-02		110	-	-
PlotA-L08-ffLobby-01		110	-	-
PlotA-L08-ffLobby-02		110	-	-
PlotA-L08-ffLobby-03		110	-	-

General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m <sup>2</sup> ]
	Standard value	95	80	0.3
PlotA-L08-liftLobby-01		110	-	-
PlotA-L08-liftLobby-02		110	-	-
PlotA-L08-lobby-01		110	-	-
PlotA-L08-lobby-02		110	-	-
PlotA-L08-lobby-03		110	-	-
PlotA-L08-lobby-04		110	-	-
PlotA-L08-lobby-05		110	-	-
PlotA-L08-Loggia		110	-	-
PlotA-L08-perimeter-02		122	-	-
PlotA-L08-perimeter-03		117	-	-
PlotA-L08-perimeter-04		116	-	-
PlotA-L08-perimeter-05		119	-	-
PlotA-L08-perimeter-07		120	-	-
PlotA-L08-perimeter-08		119	-	-
PlotA-L08-perimeter-10		121	-	-
PlotA-L08-perimeter-11		125	-	-
PlotA-L08-Stair-01		110	-	-
PlotA-L08-Stair-02		110	-	-
PlotA-L08-Stair-03		110	-	-
PlotA-L08-Stair-04		110	-	-
PlotA-L08-WC-01		110	-	-
PlotA-L08-WC-02		110	-	-
PlotA-L08-WC-03		110	-	-
PlotA-L09-Corridor		110	-	-
PlotA-L09-AWC-01		110	-	-
PlotA-L09-AWC-02		110	-	-
PlotA-L09-AWC-03		110	-	-
PlotA-L09-cleaner-01		110	-	-
PlotA-L09-cleaner-02		110	-	-
PlotA-L09-ffLobby-01		110	-	-
PlotA-L09-ffLobby-02		110	-	-
PlotA-L09-ffLobby-03		110	-	-
PlotA-L09-liftLobby-01		110	-	-
PlotA-L09-liftLobby-02		110	-	-
PlotA-L09-lobby-01		110	-	-
PlotA-L09-lobby-02		110	-	-
PlotA-L09-lobby-03		110	-	-
PlotA-L09-lobby-04		110	-	-
PlotA-L09-lobby-05		110	-	-
PlotA-L09-Loggia		110	-	-
PlotA-L09-perimeter-02		122	-	-
PlotA-L09-perimeter-03		117	-	-
PlotA-L09-perimeter-04		116	-	-

General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m <sup>2</sup> ]
	<b>Standard value</b>	95	80	0.3
PlotA-L09-perimeter-05		119	-	-
PlotA-L09-perimeter-07		120	-	-
PlotA-L09-perimeter-08		119	-	-
PlotA-L09-perimeter-10		121	-	-
PlotA-L09-perimeter-11		125	-	-
PlotA-L09-Stair-01		110	-	-
PlotA-L09-Stair-02		110	-	-
PlotA-L09-Stair-03		110	-	-
PlotA-L09-Stair-04		110	-	-
PlotA-L09-WC-01		110	-	-
PlotA-L09-WC-02		110	-	-
PlotA-L09-WC-03		110	-	-
PlotA-L10-Corridor		110	-	-
PlotA-L10-AWC-01		110	-	-
PlotA-L10-AWC-02		110	-	-
PlotA-L10-AWC-03		110	-	-
PlotA-L10-cleaner-01		110	-	-
PlotA-L10-cleaner-02		110	-	-
PlotA-L10-ffLobby-01		110	-	-
PlotA-L10-ffLobby-02		110	-	-
PlotA-L10-ffLobby-03		110	-	-
PlotA-L10-liftLobby-01		110	-	-
PlotA-L10-liftLobby-02		110	-	-
PlotA-L10-lobby-01		110	-	-
PlotA-L10-lobby-02		110	-	-
PlotA-L10-lobby-03		110	-	-
PlotA-L10-lobby-04		110	-	-
PlotA-L10-lobby-05		110	-	-
PlotA-L10-Loggia		110	-	-
PlotA-L10-perimeter-02		122	-	-
PlotA-L10-perimeter-03		117	-	-
PlotA-L10-perimeter-04		116	-	-
PlotA-L10-perimeter-05		119	-	-
PlotA-L10-perimeter-07		120	-	-
PlotA-L10-perimeter-10		121	-	-
PlotA-L10-perimeter-11		125	-	-
PlotA-L10-Stair-01		110	-	-
PlotA-L10-Stair-02		110	-	-
PlotA-L10-Stair-03		110	-	-
PlotA-L10-Stair-04		110	-	-
PlotA-L10-WC-01		110	-	-
PlotA-L10-WC-02		110	-	-
PlotA-L10-WC-03		110	-	-

General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m <sup>2</sup> ]
	Standard value	95	80	0.3
PlotA-L11-Corridor		110	-	-
PlotA-L11-AWC-01		110	-	-
PlotA-L11-AWC-02		110	-	-
PlotA-L11-AWC-03		110	-	-
PlotA-L11-cleaner-01		110	-	-
PlotA-L11-cleaner-02		110	-	-
PlotA-L11-ffLobby-01		110	-	-
PlotA-L11-ffLobby-02		110	-	-
PlotA-L11-ffLobby-03		110	-	-
PlotA-L11-liftLobby-01		110	-	-
PlotA-L11-liftLobby-02		110	-	-
PlotA-L11-lobby-01		110	-	-
PlotA-L11-lobby-02		110	-	-
PlotA-L11-lobby-03		110	-	-
PlotA-L11-lobby-04		110	-	-
PlotA-L11-lobby-05		110	-	-
PlotA-L11-Loggia		110	-	-
PlotA-L11-perimeter-02		123	-	-
PlotA-L11-perimeter-03		117	-	-
PlotA-L11-perimeter-04		116	-	-
PlotA-L11-perimeter-05		119	-	-
PlotA-L11-perimeter-07		121	-	-
PlotA-L11-perimeter-10		121	-	-
PlotA-L11-perimeter-11		126	-	-
PlotA-L11-Stair-01		110	-	-
PlotA-L11-Stair-02		110	-	-
PlotA-L11-Stair-03		110	-	-
PlotA-L11-Stair-04		110	-	-
PlotA-L11-WC-01		110	-	-
PlotA-L11-WC-02		110	-	-
PlotA-L11-WC-03		110	-	-
PlotA-L12-AWC-03		110	-	-
PlotA-L12-AWC-01		110	-	-
PlotA-L12-ffLobby-02		110	-	-
PlotA-L12-ffLobby-03		110	-	-
PlotA-L12-liftLobby-01		110	-	-
PlotA-L12-liftLobby-02		110	-	-
PlotA-L12-lobby-01		110	-	-
PlotA-L12-lobby-02		110	-	-
PlotA-L12-lobby-03		110	-	-
PlotA-L12-lobby-04		110	-	-
PlotA-L12-OfficeCore		116	-	-
PlotA-L12-OfficeCore		245	-	-

General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m <sup>2</sup> ]
	<b>Standard value</b>	95	80	0.3
PlotA-L12-perimeter-01		121	-	-
PlotA-L12-perimeter-02		120	-	-
PlotA-L12-perimeter-03		119	-	-
PlotA-L12-perimeter-04		121	-	-
PlotA-L12-Perimeter-05		123	-	-
PlotA-L12-Plantroom		110	-	-
PlotA-L12-PlantRoom		110	-	-
PlotA-L12-Stair-01		110	-	-
PlotA-L12-Stair-02		110	-	-
PlotA-L12-Stair-03		110	-	-
PlotA-L12-Stair-04		110	-	-
PlotA-L12-WC-01		110	-	-
PlotA-L12-WC-03		110	-	-
PlotA-L13-AWC-03		110	-	-
PlotA-L13-AWC-01		110	-	-
PlotA-L13-ffLobby-02		110	-	-
PlotA-L13-ffLobby-03		110	-	-
PlotA-L13-liftLobby-02		110	-	-
PlotA-L13-lobby-01		110	-	-
PlotA-L13-lobby-03		110	-	-
PlotA-L13-lobby-04		110	-	-
PlotA-L13-OfficeCore		245	-	-
PlotA-L13-perimeter-01		121	-	-
PlotA-L13-perimeter-02		120	-	-
PlotA-L13-perimeter-04		121	-	-
PlotA-L13-perimeter-05		123	-	-
PlotA-L13-Stair-03		110	-	-
PlotA-L13-Stair-04		110	-	-
PlotA-L13-WC-03		110	-	-
PlotA-L14-AWC-03		110	-	-
PlotA-L14-ffLobby-02		110	-	-
PlotA-L14-ffLobby-03		110	-	-
PlotA-L14-liftLobby-02		110	-	-
PlotA-L14-lobby-01		110	-	-
PlotA-L14-lobby-03		110	-	-
PlotA-L14-lobby-04		110	-	-
PlotA-L14-OfficeCore		116	-	-
PlotA-L14-OfficeCore		245	-	-
PlotA-L14-perimeter-04		121	-	-
PlotA-L14-perimeter-05		122	-	-
PlotA-L14-perimeter-06		121	-	-
PlotA-L14-perimeter-07		120	-	-
PlotA-L14-Stair-03		110	-	-

General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m <sup>2</sup> ]
	<b>Standard value</b>	95	80	0.3
PlotA-L14-Stair-04		110	-	-
PlotA-L14-WC-03		110	-	-
PlotA-L15-AWC-02		110	-	-
PlotA-L15-AWC-03		110	-	-
PlotA-L15-cleaner-02		110	-	-
PlotA-L15-ffLobby-02		110	-	-
PlotA-L15-ffLobby-03		110	-	-
PlotA-L15-liftLobby-02		110	-	-
PlotA-L15-lobby-01		110	-	-
PlotA-L15-lobby-02		110	-	-
PlotA-L15-lobby-03		110	-	-
PlotA-L15-lobby-04		110	-	-
PlotA-L15-OfficeCore		256	-	-
PlotA-L15-OfficeCore		116	-	-
PlotA-L15-perimeter-04		121	-	-
PlotA-L15-perimeter-05		123	-	-
PlotA-L15-perimeter-06		122	-	-
PlotA-L15-perimeter-07		121	-	-
PlotA-L15-Stair-03		110	-	-
PlotA-L15-Stair-04		110	-	-
PlotA-L15-WC-02		110	-	-
PlotA-L15-WC-03		110	-	-
PlotA-L13-lobby-02		110	-	-
PlotA-L14-AWC-01		110	-	-
PlotA-L14-cleaner-02		110	-	-
PlotA-L14-wc-02		110	-	-
PlotA-L13-WC-02		110	-	-
PlotA-L12-WC-02		110	-	-
PlotA-L16-ffLobby-03		110	-	-
PlotA-L16-liftLobby-02		110	-	-
PlotA-L16-lobby-01		110	-	-
PlotA-L16-lobby-04		110	-	-
PlotA-L16-Stair-04		110	-	-
PlotA-L16-PlantRoom		110	-	-
PlotA-L10-perimeter-06		121	-	-
PlotA-L04-Office Core-01		119	-	-
PlotA-L04-Office Perim-01		116	-	-
PlotA-L11-perimeter-06		122	-	-
PlotA-L13-OfficeCore		121	-	-
PlotA-L08-Office Perimeter		122	-	-
PlotA-L09-Office Perimeter		122	-	-
PlotA-L09-officeCore		116	-	-
PlotA-L01-mShowers		110	-	-

General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m <sup>2</sup> ]
	Standard value	95	80	0.3
PlotA-L01-mShowersCirc		110	-	-
PlotA-L01-mShowers		110	-	-
PlotA-L01-fShowersCirc		110	-	-
PlotA-L01-fShowers		110	-	-
PlotA-L01-fShowers		110	-	-
PlotA-L01-fShowersCirc		110	-	-
PlotA-L01-fShowers		110	-	-
PlotA-B01-sprinklerTankRoom		110	-	-
PlotA-L05M-exchangeVoid-04		122	-	-
PlotA-L06-WC-03		110	-	-
PlotA-L06-WC-02		110	-	-
PlotA-L06-WC-01		110	-	-
PlotA-L06-Stair-04		110	-	-
PlotA-L06-Stair-03		110	-	-
PlotA-L06-Stair-02		110	-	-
PlotA-L06-Stair-01		110	-	-
PlotA-L06-perimeter-11		125	-	-
PlotA-L06-perimeter-10		121	-	-
PlotA-L06-perimeter-09		119	-	-
PlotA-L06-perimeter-08		119	-	-
PlotA-L06-perimeter-07		120	-	-
PlotA-L06-perimeter-06		121	-	-
PlotA-L06-perimeter-05		119	-	-
PlotA-L06-perimeter-04		116	-	-
PlotA-L06-perimeter-02		122	-	-
PlotA-L06-lobby-05		110	-	-
PlotA-L06-lobby-04		110	-	-
PlotA-L06-lobby-03		110	-	-
PlotA-L06-lobby-02		110	-	-
PlotA-L06-lobby-01		110	-	-
PlotA-L06-liftLobby-02		110	-	-
PlotA-L06-liftLobby-01		110	-	-
PlotA-L06-ffLobby-03		110	-	-
PlotA-L06-ffLobby-02		110	-	-
PlotA-L06-ffLobby-01		110	-	-
PlotA-L06-cleaner-02		110	-	-
PlotA-L06-cleaner-01		110	-	-
PlotA-L06-AWC-03		110	-	-
PlotA-L06-AWC-02		110	-	-
PlotA-L06-AWC-01		110	-	-
PlotA-L06-Corridor		110	-	-
PlotA-L05-WC-03		110	-	-
PlotA-L05-WC-02		110	-	-

General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m <sup>2</sup> ]
	<b>Standard value</b>	95	80	0.3
PlotA-L05-WC-01		110	-	-
PlotA-L05-Stair-04		110	-	-
PlotA-L05-Stair-03		110	-	-
PlotA-L05-Stair-02		110	-	-
PlotA-L05-Stair-01		110	-	-
PlotA-L05-perimeter-06		124	-	-
PlotA-L05-Perimeter-05		120	-	-
PlotA-L05-Perimeter-03		120	-	-
PlotA-L05M-WC-03		110	-	-
PlotA-L05M-WC-02		110	-	-
PlotA-L05M-WC-01		110	-	-
PlotA-L05M-Stair-04		110	-	-
PlotA-L05M-Stair-03		110	-	-
PlotA-L05M-Stair-02		110	-	-
PlotA-L05M-Stair-01		110	-	-
PlotA-L05M-lobby-05		110	-	-
PlotA-L05M-lobby-04		110	-	-
PlotA-L05M-lobby-03		110	-	-
PlotA-L05M-lobby-02		110	-	-
PlotA-L05M-lobby-01		110	-	-
PlotA-L05M-liftLobby-02		110	-	-
PlotA-L05M-liftLobby-01		110	-	-
PlotA-L05M-ffLobby-03		110	-	-
PlotA-L05M-ffLobby-02		110	-	-
PlotA-L05M-ffLobby-01		110	-	-
PlotA-L05M-exchangeVoid-02		363	-	-
PlotA-L05M-cleaner-02		110	-	-
PlotA-L05M-cleaner-01		110	-	-
PlotA-L05M-AWC-03		110	-	-
PlotA-L05M-AWC-02		110	-	-
PlotA-L05M-AWC-01		110	-	-
PlotA-L05M-Corridor		110	-	-
PlotA-L05-lobby-05		110	-	-
PlotA-L05-lobby-04		110	-	-
PlotA-L05-lobby-03		110	-	-
PlotA-L05-lobby-02		110	-	-
PlotA-L05-lobby-01		110	-	-
PlotA-L05-liftLobby-02		110	-	-
PlotA-L05-liftLobby-01		110	-	-
PlotA-L05-ffLobby-03		110	-	-
PlotA-L05-ffLobby-02		110	-	-
PlotA-L05-ffLobby-01		110	-	-
PlotA-L05-cleaner-02		110	-	-



General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m <sup>2</sup> ]
	<b>Standard value</b>	95	80	0.3
PlotA-L05-cleaner-01		110	-	-
PlotA-L05-AWC-03		110	-	-
PlotA-L05-AWC-02		110	-	-
PlotA-L05-AWC-01		110	-	-
PlotA-L05-Corridor		110	-	-
PlotA-L04-wcLobby-02		110	-	-
PlotA-L04-wcLobby-01		110	-	-
PlotA-L04-WC-04		110	-	-
PlotA-L04-WC-04		110	-	-
PlotA-L04-WC-02		110	-	-
PlotA-L04-Stair-04		110	-	-
PlotA-L04-Stair-03		110	-	-
PlotA-L04-Stair-02		110	-	-
PlotA-L04-Stair-01		110	-	-
PlotA-L04-Plant-02		110	-	-
PlotA-L04-Perimeter-02		121	-	-
PlotA-L04-OfficeCore		221	-	-
PlotA-L04-Office-01		117	-	-
PlotA-L04-lvSwitchroom		110	-	-
PlotA-L04-lobby-02		110	-	-
PlotA-L04-lobby-01		110	-	-
PlotA-L04-liftLobby-03		110	-	-
PlotA-L04-liftLobby-01		110	-	-
PlotA-L04-Incubator-03		110	-	-
PlotA-L04-ffLobby-03		110	-	-
PlotA-L04-ffLobby-02		110	-	-
PlotA-L04-ffLobby-01		110	-	-
PlotA-L04-corridor-02		110	-	-
PlotA-L04-corridor-01		110	-	-
PlotA-L04-commsMain		110	-	-
PlotA-L04-AWC-04		110	-	-
PlotA-L04-AWC-02		110	-	-
PlotA-L04-AWC-01		110	-	-
PlotA-L03-wcLobby-02		110	-	-
PlotA-L03-wcLobby-01		110	-	-
PlotA-L03-WC-04		110	-	-
PlotA-L03-WC-04		110	-	-
PlotA-L03-WC-02		110	-	-
PlotA-L03-Stair-04		110	-	-
PlotA-L03-Stair-03		110	-	-
PlotA-L03-Stair-02		110	-	-
PlotA-L03-Stair-01		110	-	-
PlotA-L03-perimeter-02		120	-	-

General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m <sup>2</sup> ]
	<b>Standard value</b>	95	80	0.3
PlotA-L03-perimeter-01		122	-	-
PlotA-L03-Office-01		118	-	-
PlotA-L03-lobby-02		110	-	-
PlotA-L03-lobby-01		110	-	-
PlotA-L03-liftLobby-03		110	-	-
PlotA-L03-liftLobby-01		110	-	-
PlotA-L03-Incubator-03		110	-	-
PlotA-L03-Incubator-01		110	-	-
PlotA-L03-ffLobby-03		110	-	-
PlotA-L03-ffLobby-02		110	-	-
PlotA-L03-ffLobby-01		110	-	-
PlotA-L03-corridor-01		110	-	-
PlotA-L03-AWC-04		110	-	-
PlotA-L03-AWC-02		110	-	-
PlotA-L03-AWC-01		110	-	-
PlotA-L02-wcLobby-02		110	-	-
PlotA-L02-wcLobby-01		110	-	-
PlotA-L02-WC-04		110	-	-
PlotA-L02-WC-04		110	-	-
PlotA-L02-WC-02		110	-	-
PlotA-L02-Stair-04		110	-	-
PlotA-L02-Stair-03		110	-	-
PlotA-L02-Stair-02		110	-	-
PlotA-L02-Stair-01		110	-	-
PlotA-L02-perimeter-02		120	-	-
PlotA-L02-perimeter-01		122	-	-
PlotA-L02-Office-01		118	-	-
PlotA-L02-lobby-02		110	-	-
PlotA-L02-lobby-01		110	-	-
PlotA-L02-liftLobby-03		110	-	-
PlotA-L02-liftLobby-01		110	-	-
PlotA-L02-Incubator-03		110	-	-
PlotA-L02-Incubator-01		110	-	-
PlotA-L02-ffLobby-03		110	-	-
PlotA-L02-ffLobby-02		110	-	-
PlotA-L02-ffLobby-01		110	-	-
PlotA-L02-corridor-07		110	-	-
PlotA-L02-corridor-01		110	-	-
PlotA-L02-AWC-04		110	-	-
PlotA-L02-AWC-02		110	-	-
PlotA-L02-AWC-01		110	-	-
PlotA-L01-wc-07		110	-	-
PlotA-L01-wc-06		110	-	-

General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m <sup>2</sup> ]
	Standard value	95	80	0.3
PlotA-L01-wc-05		110	-	-
PlotA-L01-wc-04		110	-	-
PlotA-L01-wc-03		110	-	-
PlotA-L01-wc-02		110	-	-
PlotA-L01-wc-01		110	-	-
PlotA-L01-Stair-04		110	-	-
PlotA-L01-Stair-03		110	-	-
PlotA-L01-Stair-02		110	-	-
PlotA-L01-Stair-01		110	-	-
PlotA-L01-shower-04		110	-	-
PlotA-L01-shower-03		110	-	-
PlotA-L01-shower-02		110	-	-
PlotA-L01-shower-01		110	-	-
PlotA-L01-perimeter-02		120	-	-
PlotA-L01-perimeter-01		122	-	-
PlotA-L01-Office-01		118	-	-
PlotA-L01-mShowersCirc		110	-	-
PlotA-L01-mShowers		110	-	-
PlotA-L01-liftLobby-03		110	-	-
PlotA-L01-liftLobby-01		110	-	-
PlotA-L01-ffLobby-03		110	-	-
PlotA-L01-ffLobby-02		110	-	-
PlotA-L01-ffLobby-01		110	-	-
PlotA-L01-corridor-01		110	-	-
PlotA-L01-bikeStore		110	-	-
PlotA-L01-BikeStore		110	-	-
PlotA-L01-BikeStore		110	-	-
PlotA-L01-AWC-02		110	-	-
PlotA-L00-Transformer-02		110	-	-
PlotA-L00-Transformer-01		110	-	-
PlotA-L00-Stair-04		110	-	-
PlotA-L00-Stair-04		110	-	-
PlotA-L00-Stair-03		110	-	-
PlotA-L00-Stair-01		110	-	-
PlotA-L00-Plant-01		110	-	-
PlotA-L00-mainLobby		110	-	-
PlotA-L00-lvSwitch-01		110	-	-
PlotA-L00-Lobby-05		110	-	-
PlotA-L00-Lobby-04		110	-	-
PlotA-L00-lobby-03		110	-	-
PlotA-L00-lobby-02		110	-	-
PlotA-L00-lobby-01		110	-	-
PlotA-L00-Incubator-03		110	-	-

General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m <sup>2</sup> ]
	Standard value	95	80	0.3
PlotA-L00-gasMeter		110	-	-
PlotA-L00-ffLobby-03		110	-	-
PlotA-L00-ffLobby-02		110	-	-
PlotA-L00-Corridor-05		110	-	-
PlotA-L00-Corridor-03		110	-	-
PlotA-L00-Corridor-02		110	-	-
PlotA-L00-Corridor-01		110	-	-
PlotA-L00-corridor-01		110	-	-
PlotA-L00-CommsIntake-02		110	-	-
PlotA-L00-CommsIntake-01		110	-	-
PlotA-L00-Bins-01		110	-	-
PlotA-L00-Transformer 2		110	-	-
PlotA-L00-Transformer 1		110	-	-
PlotA-B01-stair-02		110	-	-
PlotA-B01-Stair-01		110	-	-
PlotA-B01-Domestic Water Storage Tank		110	-	-
PlotA-B01-plateHEX		110	-	-
PlotA-B01-lobby-03		110	-	-
PlotA-B01-lobby-02		110	-	-
PlotA-B01-lobby-01		110	-	-
PlotA-B01-liftLobby-01		110	-	-
PlotA-B01-ffLobby-03		110	-	-
PlotA-B01-ffLobby-02		110	-	-
PlotA-B01-ffLobby-01		110	-	-
PlotA-B01-bohCorridor		110	-	-
PlotA-L05-Perimeter-04		120	-	-
PlotA-L02-Incubator-02		110	-	-
PlotA-L03-Incubator-02		110	-	-
PlotA-L01-BikeStore		110	-	-
PlotA-L04-Incubator-02		110	-	-
PlotA-Lo5-OfficeCore		116	-	-
PlotA-L06-OfficeCore		116	-	-
PlotA-L06-perimeter-01		124	-	-
PlotA-L06-Loggia		110	-	-
PlotA-L06-perimeter-03		117	-	-
PlotA-L06-perimeter-13		125	-	-
PlotA-L06-perimeter-11		121	-	-
PlotA-L09-perimeter-12		116	-	-
PlotA-L09-perimeter-11		121	-	-
PlotA-L09-perimeter-01		126	-	-
PlotA-L09-perimeter-13		120	-	-
PlotA-L10-Perimeter 01		119	-	-
PlotA-L04-Perimeter-01		124	-	-

General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m <sup>2</sup> ]
	<b>Standard value</b>	95	80	0.3
PlotA-L04-incubator-01		110	-	-
PlotA-L07-officeCore		116	-	-
PlotA-L07-perimeter-11		122	-	-
PlotA-L08-Perimeter 01		126	-	-
PlotA-L08-Perimeter 02		124	-	-
PlotA-L08-perimeter-11		122	-	-
PlotA-L08-perimeter-11		121	-	-
PlotA-L08-officeCore		116	-	-
PlotA-L09-Perimeter 01		142	-	-
PlotA-L08-perimeter-01		124	-	-
PlotA-L10-perimeter-01		129	-	-
PlotA-L11-Perimeter 01		123	-	-
PlotA-L10-perimeter-11		122	-	-
PlotA-L11-OfficeCore		116	-	-
PlotA-L11-perimeter-13		126	-	-
PlotA-L12-Perimeter 01		125	-	-
PlotA-L12-Perimeter 02		124	-	-
PlotA-L11-perimeter-11		122	-	-
PlotA-L10-OfficeCore		116	-	-
PlotA-L05-Perimeter		120	-	-
PlotA-L06-Perimeter 02		140	-	-
PlotA-L05M-Open Plan Office		116	-	-
PlotA-L06-Perimeter 01		122	-	-

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

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
PlotA-L07-Loggia	NO (-53.7%)	NO
PlotA-L07-perimeter-02	NO (-63%)	NO
PlotA-L07-perimeter-03	NO (-76.2%)	NO
PlotA-L07-perimeter-04	NO (-90.1%)	NO
PlotA-L07-perimeter-05	NO (-88.7%)	NO
PlotA-L07-perimeter-07	NO (-73.3%)	NO
PlotA-L07-perimeter-08	NO (-72.8%)	NO
PlotA-L07-perimeter-09	NO (-79.9%)	NO
PlotA-L07-perimeter-10	NO (-82.2%)	NO
PlotA-L07-perimeter-11	NO (-84.2%)	NO
PlotA-L08-Loggia	NO (-62%)	NO
PlotA-L08-perimeter-02	NO (-69.2%)	NO
PlotA-L08-perimeter-03	NO (-80.4%)	NO
PlotA-L08-perimeter-04	NO (-91.7%)	NO
PlotA-L08-perimeter-05	NO (-90.5%)	NO
PlotA-L08-perimeter-07	NO (-70.2%)	NO
PlotA-L08-perimeter-08	NO (-73.8%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
PlotA-L08-perimeter-10	NO (-80.4%)	NO
PlotA-L08-perimeter-11	NO (-81.9%)	NO
PlotA-L09-Loggia	NO (-53%)	NO
PlotA-L09-perimeter-02	NO (-63.2%)	NO
PlotA-L09-perimeter-03	NO (-76.7%)	NO
PlotA-L09-perimeter-04	NO (-90.5%)	NO
PlotA-L09-perimeter-05	NO (-89.3%)	NO
PlotA-L09-perimeter-07	NO (-73.3%)	NO
PlotA-L09-perimeter-08	NO (-79.1%)	NO
PlotA-L09-perimeter-10	NO (-81.1%)	NO
PlotA-L09-perimeter-11	NO (-84.5%)	NO
PlotA-L10-Loggia	NO (-61.5%)	NO
PlotA-L10-perimeter-02	NO (-69.2%)	NO
PlotA-L10-perimeter-03	NO (-80.3%)	NO
PlotA-L10-perimeter-04	NO (-91.7%)	NO
PlotA-L10-perimeter-05	NO (-90.6%)	NO
PlotA-L10-perimeter-07	NO (-82.7%)	NO
PlotA-L10-perimeter-10	NO (-79.7%)	NO
PlotA-L10-perimeter-11	NO (-81.7%)	NO
PlotA-L11-Loggia	NO (-57.5%)	NO
PlotA-L11-perimeter-02	NO (-67.5%)	NO
PlotA-L11-perimeter-03	NO (-78.6%)	NO
PlotA-L11-perimeter-04	NO (-90.9%)	NO
PlotA-L11-perimeter-05	NO (-89.5%)	NO
PlotA-L11-perimeter-07	NO (-80.3%)	NO
PlotA-L11-perimeter-10	NO (-77.7%)	NO
PlotA-L11-perimeter-11	NO (-83.9%)	NO
PlotA-L12-OfficeCore	NO (-90%)	NO
PlotA-L12-OfficeCore	N/A	N/A
PlotA-L12-perimeter-01	NO (-62.9%)	NO
PlotA-L12-perimeter-02	NO (-63.5%)	NO
PlotA-L12-perimeter-03	NO (-60.7%)	NO
PlotA-L12-perimeter-04	NO (-75.1%)	NO
PlotA-L12-Perimeter-05	NO (-46.3%)	NO
PlotA-L13-OfficeCore	N/A	N/A
PlotA-L13-perimeter-01	NO (-61.7%)	NO
PlotA-L13-perimeter-02	NO (-61%)	NO
PlotA-L13-perimeter-04	NO (-74.9%)	NO
PlotA-L13-perimeter-05	NO (-52.9%)	NO
PlotA-L14-OfficeCore	NO (-88.6%)	NO
PlotA-L14-OfficeCore	N/A	N/A
PlotA-L14-perimeter-04	NO (-70.3%)	NO
PlotA-L14-perimeter-05	NO (-48.9%)	NO
PlotA-L14-perimeter-06	NO (-63.7%)	NO
PlotA-L14-perimeter-07	NO (-60.4%)	NO
PlotA-L15-OfficeCore	N/A	N/A
PlotA-L15-OfficeCore	NO (-89.5%)	NO
PlotA-L15-perimeter-04	NO (-68.7%)	NO
PlotA-L15-perimeter-05	NO (-52.2%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
PlotA-L15-perimeter-06	NO (-63.2%)	NO
PlotA-L15-perimeter-07	NO (-70.1%)	NO
PlotA-L10-perimeter-06	NO (-67%)	NO
PlotA-L04-Office Core-01	NO (-75.8%)	NO
PlotA-L04-Office Perim-01	NO (-90.1%)	NO
PlotA-L11-perimeter-06	NO (-66.8%)	NO
PlotA-L13-OfficeCore	NO (-66.2%)	NO
PlotA-L08-Office Perimeter	NO (-66.5%)	NO
PlotA-L09-Office Perimeter	NO (-66.3%)	NO
PlotA-L09-officeCore	NO (-92.8%)	NO
PlotA-L01-fShowers	N/A	N/A
PlotA-L05M-exchangeVoid-04	NO (-73.2%)	NO
PlotA-L06-perimeter-11	NO (-82.8%)	NO
PlotA-L06-perimeter-10	NO (-78.7%)	NO
PlotA-L06-perimeter-09	NO (-71.4%)	NO
PlotA-L06-perimeter-08	NO (-64.8%)	NO
PlotA-L06-perimeter-07	NO (-73.1%)	NO
PlotA-L06-perimeter-06	NO (-62.8%)	NO
PlotA-L06-perimeter-05	NO (-83.8%)	NO
PlotA-L06-perimeter-04	NO (-84.8%)	NO
PlotA-L06-perimeter-02	NO (-33.8%)	NO
PlotA-L05-perimeter-06	NO (-68.1%)	NO
PlotA-L05-Perimeter-05	NO (-50%)	NO
PlotA-L05-Perimeter-03	NO (-20.3%)	NO
PlotA-L05M-exchangeVoid-02	NO (-72.1%)	NO
PlotA-L04-Perimeter-02	NO (-84%)	NO
PlotA-L04-OfficeCore	N/A	N/A
PlotA-L04-Office-01	NO (-91.7%)	NO
PlotA-L04-Incubator-03	NO (-79.2%)	NO
PlotA-L04-commsMain	N/A	N/A
PlotA-L03-perimeter-02	NO (-85.3%)	NO
PlotA-L03-perimeter-01	NO (-67.3%)	NO
PlotA-L03-Office-01	NO (-88.5%)	NO
PlotA-L03-Incubator-03	NO (-79.3%)	NO
PlotA-L03-Incubator-01	NO (-73%)	NO
PlotA-L02-perimeter-02	NO (-81.5%)	NO
PlotA-L02-perimeter-01	NO (-59.8%)	NO
PlotA-L02-Office-01	NO (-86.4%)	NO
PlotA-L02-Incubator-03	NO (-79.3%)	NO
PlotA-L02-Incubator-01	NO (-73%)	NO
PlotA-L01-perimeter-02	NO (-83.9%)	NO
PlotA-L01-perimeter-01	NO (-67.1%)	NO
PlotA-L01-Office-01	NO (-85.7%)	NO
PlotA-L01-mShowers	N/A	N/A
PlotA-L00-Incubator-03	N/A	N/A
PlotA-L00-CommsIntake-02	NO (-8.5%)	NO
PlotA-L00-CommsIntake-01	N/A	N/A
PlotA-L05-Perimeter-04	NO (-47.4%)	NO
PlotA-L02-Incubator-02	NO (-82.6%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
PlotA-L03-Incubator-02	NO (-80.8%)	NO
PlotA-L04-Incubator-02	NO (-77.3%)	NO
PlotA-Lo5-OfficeCore	YES (+189.3%)	NO
PlotA-L06-OfficeCore	NO (-87.5%)	NO
PlotA-L06-perimeter-01	NO (-10.4%)	NO
PlotA-L06-Loggia	NO (-32%)	NO
PlotA-L06-perimeter-03	NO (-32.2%)	NO
PlotA-L06-perimeter-13	NO (-20.5%)	NO
PlotA-L06-perimeter-11	NO (-55%)	NO
PlotA-L09-perimeter-12	NO (-50.9%)	NO
PlotA-L09-perimeter-11	NO (-77.4%)	NO
PlotA-L09-perimeter-01	NO (-51.8%)	NO
PlotA-L09-perimeter-13	NO (-38.4%)	NO
PlotA-L10-Perimeter 01	NO (-29.5%)	NO
PlotA-L04-Perimeter-01	NO (-52.7%)	NO
PlotA-L04-incubator-01	NO (-51.9%)	NO
PlotA-L07-officeCore	NO (-91.6%)	NO
PlotA-L07-perimeter-11	NO (-72.6%)	NO
PlotA-L08-Perimeter 01	NO (-46.7%)	NO
PlotA-L08-Perimeter 02	NO (-56.5%)	NO
PlotA-L08-perimeter-11	NO (-78.2%)	NO
PlotA-L08-perimeter-11	NO (-50.4%)	NO
PlotA-L08-officeCore	NO (-92.9%)	NO
PlotA-L09-Perimeter 01	NO (-69.8%)	NO
PlotA-L08-perimeter-01	NO (-65.7%)	NO
PlotA-L10-perimeter-01	NO (-70.3%)	NO
PlotA-L11-Perimeter 01	NO (-47.1%)	NO
PlotA-L10-perimeter-11	NO (-77.1%)	NO
PlotA-L11-OfficeCore	NO (-92.3%)	NO
PlotA-L11-perimeter-13	NO (-46%)	NO
PlotA-L12-Perimeter 01	NO (-64.9%)	NO
PlotA-L12-Perimeter 02	NO (-45.7%)	NO
PlotA-L11-perimeter-11	NO (-76%)	NO
PlotA-L10-OfficeCore	NO (-92.9%)	NO
PlotA-L05-Perimeter	NO (-63.4%)	NO
PlotA-L06-Perimeter 02	NO (-29.8%)	NO
PlotA-L05M-Open Plan Office	YES (+3254.2%)	NO
PlotA-L06-Perimeter 01	NO (-13.1%)	NO

## Regulation 25A: Consideration of high efficiency 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
Floor area [m <sup>2</sup> ]	49568.8	49568.8
External area [m <sup>2</sup> ]	34393.8	34393.8
Weather	LON	LON
Infiltration [m <sup>3</sup> /hm <sup>2</sup> @ 50Pa]	3	3
Average conductance [W/K]	10848.7	13552.7
Average U-value [W/m <sup>2</sup> K]	0.32	0.39
Alpha value* [%]	7.92	10

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

## Building Use

### % Area Building Type

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

## Energy Consumption by End Use [kWh/m<sup>2</sup>]

	Actual	Notional
Heating	3.14	4.8
Cooling	6	5.12
Auxiliary	5.96	7.19
Lighting	11.84	13.01
Hot water	4.11	4.06
Equipment*	44.71	44.71
<b>TOTAL**</b>	<b>31.05</b>	<b>34.18</b>

\* 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<sup>2</sup>]

	Actual	Notional
Photovoltaic systems	1.13	1.61
Wind turbines	0	0
CHP generators	0	0
Solar thermal systems	0	0
<i>Displaced electricity</i>	<i>1.13</i>	<i>1.61</i>

## Energy & CO<sub>2</sub> Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m <sup>2</sup> ]	104.86	101.03
Primary energy [kWh <sub>PE</sub> /m <sup>2</sup> ]	41.68	44.95
Total emissions [kg/m <sup>2</sup> ]	3.77	5

## HVAC Systems Performance

System Type	Heat dem MJ/m2	Cool dem MJ/m2	Heat con kWh/m2	Cool con kWh/m2	Aux con kWh/m2	Heat SSEFF	Cool SSEER	Heat gen SEFF	Cool gen SEER
<b>[ST] Split or multi-split system, [HS] ASHP, [HFT] Electricity, [CFT] Electricity</b>									
Actual	0	0	0	0	0	3.26	3.74	3.26	5
Notional	0	0	0	0	0	2.78	4.63	----	----
<b>[ST] Central heating using water: radiators, [HS] District heating, [HFT] District Heating, [CFT] Electricity</b>									
Actual	54.3	0	16.1	0	1	0.94	0	1	0
Notional	85.9	0	26.4	0	1	0.91	0	----	----
<b>[ST] Central heating using water: radiators, [HS] District heating, [HFT] District Heating, [CFT] Electricity</b>									
Actual	9.4	0	2.8	0	8.1	0.94	0	1	0
Notional	20.4	0	6.3	0	2.5	0.91	0	----	----
<b>[ST] Fan coil systems, [HS] District heating, [HFT] District Heating, [CFT] Electricity</b>									
Actual	4.7	123.4	1.4	7.9	7.3	0.92	4.36	1	5.46
Notional	5.8	111.7	1.8	6.7	9.1	0.91	4.63	----	----
<b>[ST] No Heating or Cooling</b>									
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