BRUKL Output Document

HM Government

Compliance with England Building Regulations Part L 2021

Project name

ET_WholeBuilding_Part5

As built

Date: Fri Nov 15 18:37:15 2024

Administrative information

Building Details

Address: Address 1, City, Postcode

Certification tool

Calculation engine: Apache

Calculation engine version: 7.0.26

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 7.0.26

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

Certifier details

Name: Name

Telephone number: Phone

Address: Street Address, City, Postcode

Foundation area [m^2]: 1867.64

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

Target CO_2 emission rate (TER), $kgCO_2/m^2$.annum	3.84	
Building CO_2 emission rate (BER), $kgCO_2/m^2$.annum	3.24	
Target primary energy rate (TPER), kWh_{PE}/m^2.annum	42.47	
Building primary energy rate (BPER), kWh_{PE}/m^2.annum	35.49	
Do the building's emission and primary energy rates exceed the targets?	BER =< TER	BPER =< TPER

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

Fabric element	$U_{a\text{-}Limit}$	$U_{a\text{-}Calc}$	$U_{i\text{-}Calc}$	First surface with maximum value
Walls*	0.26	-	-	UNKNOWN
Floors	0.18	0.15	0.15	00000168:Surf[0]
Pitched roofs	0.16	0.12	0.12	B100006F:Surf[3]
Flat roofs	0.18	0.12	0.12	00000123:Surf[0]
Windows** and roof windows	1.6	1.16	1.48	00000150:Surf[1]
Rooflights***	2.2	-	-	No roof lights in building
Personnel doors^	1.6	-	-	No personnel doors in building
Vehicle access & similar large doors	1.3	-	-	No vehicle access doors in building
High usage entrance doors	3	-	-	No high usage entrance doors in building

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

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

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

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

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

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

Air permeability	Limiting standard	This building
$m^3/(h.m^2)$ at 50 Pa	8	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- 03 WC AHU

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.53	4.69	0	1.6	0.8
Standard value	2.5*	N/A	N/A	2^	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES

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

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

2- 02 Displcement_AHU_Tower (Office)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.53	4.69	0	1.36	0.7
Standard value	2.5*	N/A	N/A	2^	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES

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

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

3- 02_FCU_AHU_Tower (Laboratory)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.53	4.69	0	1.24	0.7
Standard value	2.5*	N/A	N/A	2^	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES

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

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

4- 02_FCU_AHU_Podium (Laboratory)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.53	4.69	0	1.24	0.76
Standard value	2.5*	N/A	N/A	2^	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES

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

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

5- 02_FCU_AHU_Podium (Laboratory_WU)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.53	4.69	0	1.24	0.69
Standard value	2.5*	N/A	N/A	2^	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES

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

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

6- 02 Displcement_inboundAHU_Tower (Office)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.53	4.69	0	1.36	0.8
Standard value	2.5*	N/A	N/A	2^	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES

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

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

7- 02 Entrance

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.53	4.69	0	1.36	0.7
Standard value	2.5*	N/A	N/A	2^	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES

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

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

8- 02 Displcement_AHU_Cafe (Office)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.53	4.69	0	1.36	0.83
Standard value	2.5*	N/A	N/A	2^	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES

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

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

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

Zone-level mechanical ventilation, exhaust, and terminal units

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

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

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

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	**Zone**	**Standard**
04_Perimeter-Office	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Perimeter-Office	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Perimeter-Office	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Perimeter-Office	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Perimeter-Office	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Perimeter-Office	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Perimeter-Office	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Perimeter-Office	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Perimeter-Office	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Internal	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Perimeter	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Perimeter	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Perimeter	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office-Perimeter	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office_Inner	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office_Inner	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office_Inner	-	-	-	-	-	-	-	0.3	-	-	N/A
04_Office_Inner	-	-	-	-	-	-	-	0.3	-	-	N/A
05_Office-Perimeter	-	-	-	-	-	-	-	0.3	-	-	N/A
05_Office-Perimeter	-	-	-	-	-	-	-	0.3	-	-	N/A
05_Office-Perimeter	-	-	-	-	-	-	-	0.3	-	-	N/A
05_Office-Perimeter	-	-	-	-	-	-	-	0.3	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
05_Office_Inner	-	-	-	-	-	-	-	0.3	-	-	N/A
05_Office_Inner	-	-	-	-	-	-	-	0.3	-	-	N/A
05_Office_Inner	-	-	-	-	-	-	-	0.3	-	-	N/A
05_Office_Inner	-	-	-	-	-	-	-	0.3	-	-	N/A
00_Kitchen	-	-	-	-	-	-	-	0.2	-	-	N/A
00_Circulation	-	-	-	-	-	-	-	0.2	-	-	N/A
00_Store	-	-	-	-	-	-	-	0.2	-	-	N/A
00_UKPN	-	-	-	-	-	-	-	0.2	-	-	N/A
00_BOH	-	-	-	-	-	-	-	0.2	-	-	N/A
00_Circulation	-	-	-	-	-	-	-	0.2	-	-	N/A
00_Open-Lobby	-	-	-	-	-	-	-	0.2	-	-	N/A
00_Circulation	-	-	-	-	-	-	-	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/m²]
Standard value	95	80	0.3
26_WC	120	-	-
26_Circulation	120	-	-
26_Circulation	120	-	-
26_Stair	120	-	-
26_Circulation	120	-	-
26_Circulation	120	-	-
26_Circulation	120	-	-
26_Server	120	-	-
27_Stair	120	-	-
27_Circulation	120	-	-
27_Circulation	120	-	-
27_Circulation	120	-	-
27_Circulation	120	-	-
27_Circulation	120	-	-
27_WC	120	-	-
28_WC	120	-	-
28_Circulation	120	-	-
28_Circulation	120	-	-
28_Stair	120	-	-
28_Circulation	120	-	-
28_Circulation	120	-	-
28_Circulation	120	-	-
14_Stair	120	-	-
14_Circulation	120	-	-
14_WC	120	-	-
14_Circulation	120	-	-
14_Circulation	120	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
14_Circulation	120	-	-
15_WC	120	-	-
15_Stair	120	-	-
15_Circulation	120	-	-
15_Circulation	120	-	-
15_Circulation	120	-	-
15_Circulation	120	-	-
16_Stair	120	-	-
16_Circulation	120	-	-
16_Circulation	120	-	-
16_Circulation	120	-	-
16_Circulation	120	-	-
16_Circulation	120	-	-
16_Circulation	120	-	-
16_Circulation	120	-	-
16_Circulation	120	-	-
16_Circulation	120	-	-
16_Circulation	120	-	-
16_WC	120	-	-
16_Circulation	120	-	-
16_Circulation	120	-	-
16_Circulation	120	-	-
17_WC	120	-	-
17_Stair	120	-	-
17_Circulation	120	-	-
17_Circulation	120	-	-
17_Circulation	120	-	-
17_Circulation	120	-	-
18_Circulation	120	-	-
18_Stair	120	-	-
18_Circulation	120	-	-
18_Circulation	120	-	-
18_Circulation	120	-	-
18_WC	120	-	-
19_Circulation	120	-	-
19_Circulation	120	-	-
19_Stair	120	-	-
19_Circulation	120	-	-
19_Circulation	120	-	-
19_WC	120	-	-
20_Circulation	120	-	-
20_WC	120	-	-
20_Circulation	120	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
20_Circulation	120	-	-
20_Circulation	120	-	-
21_Stair	120	-	-
21_Circulation	120	-	-
21_Circulation	120	-	-
21_Circulation	120	-	-
21_Circulation	120	-	-
21_WC	120	-	-
22_Circulation	120	-	-
22_Stair	120	-	-
22_Circulation	120	-	-
22_WC	120	-	-
22_Circulation	120	-	-
22_Circulation	120	-	-
23_Stair	120	-	-
23_WC	120	-	-
23_Circulation	120	-	-
23_Circulation	120	-	-
23_Circulation	120	-	-
23_Circulation	120	-	-
23_Circulation	120	-	-
24_Circulation	120	-	-
24_Stair	120	-	-
24_Circulation	120	-	-
24_Circulation	120	-	-
24_Circulation	120	-	-
24_WC	120	-	-
24_Circulation	120	-	-
25_WC	120	-	-
25_Stair	120	-	-
25_Circulation	120	-	-
25_Circulation	120	-	-
25_Circulation	120	-	-
25_Circulation	120	-	-
25_Circulation	120	-	-
21_Plant	120	-	-
22_Circulation	120	-	-
22_Plant	120	-	-
20_Circulation	120	-	-
20_Plant	120	-	-
19_Circulation	120	-	-
18_Circulation	120	-	-
17_Circulation	120	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
16_Circulation	120	-	-
15_Circulation	120	-	-
14_Circulation	120	-	-
12_Stair	120	-	-
12_Circulation	120	-	-
12_Circulation	120	-	-
12_Circulation	120	-	-
12_Circulation	120	-	-
12_Cleaners	120	-	-
12_WC	120	-	-
12_WC	120	-	-
12_WC	120	-	-
12_Circulation	120	-	-
12_Server Room	120	-	-
12_Circulation	120	-	-
12_Circulation	120	-	-
10_Stair	120	-	-
10_Circulation	120	-	-
10_Circulation	120	-	-
10_WC	120	-	-
10_Circulation	120	-	-
10_Circulation	120	-	-
10_WC	120	-	-
10_Circulation	120	-	-
09_Stair	120	-	-
09_Circulation	120	-	-
09_Circulation	120	-	-
09_WC	120	-	-
09_Circulation	120	-	-
09_Circulation	120	-	-
09_WC	120	-	-
09_Circulation	120	-	-
09_WC	120	-	-
10_WC	120	-	-
06_Stair	120	-	-
06_Circulation	120	-	-
06_Circulation	120	-	-
06_WC	120	-	-
06_Circulation	120	-	-
06_Circulation	120	-	-
06_WC	120	-	-
06_Circulation	120	-	-
06_WC	120	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
08_Stair	120	-	-
08_Circulation	120	-	-
08_Circulation	120	-	-
08_WC	120	-	-
08_Circulation	120	-	-
08_Circulation	120	-	-
08_WC	120	-	-
08_Circulation	120	-	-
08_WC	120	-	-
07_Stair	120	-	-
07_Circulation	120	-	-
07_Circulation	120	-	-
07_WC	120	-	-
07_Circulation	120	-	-
07_Circulation	120	-	-
07_WC	120	-	-
07_Circulation	120	-	-
07_WC	120	-	-
04_Stair	120	-	-
04_Circulation	120	-	-
04_Circulation	120	-	-
04_WC	120	-	-
04_Circulation	120	-	-
04_Circulation	120	-	-
04_WC	120	-	-
08_Server Room	120	-	-
11_Stair	120	-	-
11_Circulation	120	-	-
11_Circulation	120	-	-
11_Circulation	120	-	-
11_Circulation	120	-	-
11_Cleaners	120	-	-
11_WC	120	-	-
11_WC	120	-	-
11_WC	120	-	-
11_Circulation	120	-	-
11_Circulation	120	-	-
11_Server Room	120	-	-
11_Circulation	120	-	-
11_Circulation	120	-	-
13_Stair	120	-	-
13_Circulation	120	-	-
13_WC	120	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
13_Circulation	120	-	-
13_Circulation	120	-	-
13_Circulation	120	-	-
13_Circulation	120	-	-
12_Server Room	120	-	-
17_Server Room	120	-	-
20_Circulation	120	-	-
23_Server	120	-	-
21_Circulation	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m²]
Standard value	95	80	0.3
04_Office-Internal	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Office-Internal	120	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m²]
Standard value	95	80	0.3
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Plantroom	120	-	-
04_Plantroom	120	-	-
04_WC	120	-	-
04_WC	120	-	-
04_Plantroom	120	-	-
04_Plantroom	120	-	-
04_Circulation	120	-	-
04_Circulation	120	-	-
04_Circulation	120	-	-
04_Circulation	120	-	-
04_Circulation	120	-	-
04_Office-Perimeter	120	-	-
04_Office-Perimeter	120	-	-
04_Office-Perimeter	120	-	-
04_Office-Perimeter	120	-	-
04_Office_Inner	120	-	-
04_Office_Inner	120	-	-
04_Office_Inner	120	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
04_Office_Inner	120	-	-
05_Stair	120	-	-
05_Circulation	120	-	-
05_Circulation	120	-	-
05_WC	120	-	-
05_Circulation	120	-	-
05_Circulation	120	-	-
05_WC	120	-	-
05_Plantroom	120	-	-
05_Plantroom	120	-	-
05_WC	120	-	-
05_WC	120	-	-
05_Plantroom	120	-	-
05_Plantroom	120	-	-
05_Circulation	120	-	-
05_Circulation	120	-	-
05_Circulation	120	-	-
05_Circulation	120	-	-
05_Circulation	120	-	-
05_Office-Perimeter	120	-	-
05_Office-Perimeter	120	-	-
05_Office-Perimeter	120	-	-
05_Office-Perimeter	120	-	-
05_Office_Inner	120	-	-
05_Office_Inner	120	-	-
05_Office_Inner	120	-	-
05_Office_Inner	120	-	-
30_Circulation	120	-	-
30_Circulation	120	-	-
30_Circulation	120	-	-
30_WC	120	-	-
30_Circulation	120	-	-
30_Stair	120	-	-
30_Office-Internal	120	-	-
30_Office-Internal	120	-	-
30_Office-Internal	120	-	-
30_Plantroom	120	-	-
30_Office-Internal	120	-	-
30_Circulation	120	-	-
30_Office-Internal	120	-	-
30_Plantroom	120	-	-
30_Office-Internal	120	-	-
30_AHU-Plantroon	120	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
30_Office-Internal	120	-	-
30_Office-Internal	120	-	-
30_AHU-Plantroon	120	-	-
30_AHU-Plantroon	120	-	-
30_Perimeter-Office	120	-	-
30_Perimeter-Office	120	-	-
30_AHU-Plantroon	120	-	-
30_Perimeter-Office	120	-	-
30_Perimeter-Office	120	-	-
28_WC	120	-	-
28_Circulation	120	-	-
28_Circulation	120	-	-
28_Stair	120	-	-
28_Circulation	120	-	-
28_Circulation	120	-	-
28_Circulation	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_Perimeter-Office	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_AHU-Plantroon	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Perimeter-Office	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
04_Office-Internal	120	-	-
31_Stair	120	-	-
31_Circulation	120	-	-
31_Lift-Machine-Room	120	-	-
31_Lift-Machine-Room	120	-	-
31_MEP-Plantroom	120	-	-
31_Circulation	120	-	-
31_Circulation	120	-	-
31_Lift-Machine-Room	120	-	-
00_Public	120	-	-
00_BOH	120	-	-
00_BOH	120	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
00_BOH	120	-	-
00_AHU	120	-	-
B1_Showers	120	-	-
00_Kitchen	120	-	-
00_Circulation	120	-	-
00_Plant	120	-	-
00_WC	120	-	-
00_Circulation	120	-	-
00_Open-Lobby	120	-	-
00_WC	120	-	-
00_Stairs	120	-	-
00_Meeting-Office	120	-	-
00_Circulation	120	-	-
00_WC	120	-	-
00_Plantroom	120	-	-
00_BOH	120	-	-
00_Class-E	120	-	-
00_BOH	120	-	-
00_Meeting-Office	120	-	-
00_Store	120	-	-
00_Public	120	-	-
00_Open-Lobby	120	-	-
00_Store	120	-	-
00_Stairs	120	-	-
00_UKPN	120	-	-
00_BOH	120	-	-
00_Stairs	120	-	-
00_Meeting-Office	120	-	-
00_Meeting-Office	120	-	-
00_Circulation	120	-	-
00_Circulation	120	-	-
00_WC	120	-	-
00_Circulation	120	-	-
00_AHU-Plantroom	120	-	-
00_AHU-Plantroom	120	-	-
00_Circulation	120	-	-
00_Circulation	120	-	-
00_AHU-Plantroom	120	-	-
B1_Circulation	120	-	-
00_Meeting-Office	120	-	-
00_Meeting-Office	120	-	-
00_Meeting-Office	120	-	-
00_Stairs	120	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
00_Meeting-Office	120	-	-
00_Class-E	120	-	-
00_Meeting-Office	120	-	-
00_Circulation	120	-	-
00_Circulation	120	-	-
00_Circulation	120	-	-
00_WC	120	-	-
00_Circulation	120	-	-
00_Circulation	120	-	-
00_Circulation	120	-	-
00_Class-E	120	-	-
00_Circulation	120	-	-
00_Plantroom	120	-	-
00_WC	120	-	-
00_Circulation	120	-	-
00_AHU-Plantroom	120	-	-
00_Circulation	120	-	-
00_AHU-Plantroom	120	-	-
00_Plantroom	120	-	-
00_Circulation	120	-	-
00_AHU-Plantroom	120	-	-
00_Class-E	120	-	-
00_Circulation	120	-	-
00_AHU-Plantroom	120	-	-
00_Circulation	120	-	-
00_WC	120	-	-
00_AHU-Plantroom	120	-	-
00_AHU-Plantroom	120	-	-
00_AHU-Plantroom	120	-	-
00_Cleaners	120	-	-
00_Class-E	120	-	-
00_AHU-Plantroom	120	-	-
00_Circulation	120	-	-
00_Circulation	120	-	-
00_Stairs	120	-	-
00_Circulation	120	-	-
00_Circulation	120	-	-
00_WC	120	-	-
00_Class-E	120	-	-
B1_Plantroom	120	-	-
00_WC	120	-	-
B1_Plantroom	120	-	-
B1_Stairs	120	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
B1_Plantroom	120	-	-
B1_Plantroom	120	-	-
B1_Circulation	120	-	-
B1_Plantroom	120	-	-
B1_Plantroom	120	-	-
B1_Plantroom	120	-	-
B1_Plantroom	120	-	-
B1_Plantroom	120	-	-
B1_Circulation	120	-	-
B1_Locker-Room	120	-	-
B1_Showers	120	-	-
B1_Circulation	120	-	-
B1_Storage	120	-	-
B1_WC	120	-	-
B1_Lobby	120	-	-
B1_Circulation	120	-	-
B1_Circulation	120	-	-
B1_Cleaners	120	-	-
B1_Storage	120	-	-
B1_Showers	120	-	-
B1_Cleaners	120	-	-
B1_Plantroom	120	-	-
B1_WC	120	-	-
B1_Plantroom	120	-	-
B1_Stairs	120	-	-
B1_Plantroom	120	-	-
B1_Circulation	120	-	-
B1_Plantroom	120	-	-
B1_Plantroom	120	-	-
B1_Dockmaster	120	-	-
B2_Refuse-Store	120	-	-
B1_Circulation	120	-	-
B1_Circulation	120	-	-
B1_Circulation	120	-	-
B1_Circulation	120	-	-
B1_Circulation	120	-	-
B1_Plantroom	120	-	-
B1_Plantroom	120	-	-
B1_Circulation	120	-	-
B1_Plantroom	120	-	-
B2_Plantroom	120	-	-
B1_Plantroom	120	-	-
B2_Water-Tank	120	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
B1_Bike-Store	120	-	-
B1_Circulation	120	-	-
B1_Showers	120	-	-
00_Circulation	120	-	-
B1_Showers	120	-	-
B1_Circulation	120	-	-
B1_Showers	120	-	-
B1_Circulation	120	-	-
B1_Showers	120	-	-
B1_Circulation	120	-	-
B1_Showers	120	-	-
B1_Showers	120	-	-
00_Circulation	120	-	-
00_Circulation	120	-	-
00_Open-Lobby	120	-	-
00_Open-Lobby	120	-	-
00_Circulation	120	-	-
00_Circulation	120	-	-

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?
26_Circulation	NO (-100%)	NO
26_Circulation	NO (-100%)	NO
26_Stair	N/A	N/A
26_Circulation	N/A	N/A
26_Circulation	N/A	N/A
26_Circulation	N/A	N/A
26_Server	N/A	N/A
27_Stair	N/A	N/A
27_Circulation	N/A	N/A
27_Circulation	N/A	N/A
27_Circulation	NO (-100%)	NO
27_Circulation	N/A	N/A
27_Circulation	N/A	N/A
28_Circulation	N/A	N/A
28_Circulation	N/A	N/A
28_Stair	N/A	N/A
28_Circulation	N/A	N/A
28_Circulation	N/A	N/A
28_Circulation	N/A	N/A
14_Stair	N/A	N/A
14_Circulation	NO (-100%)	NO
14_Circulation	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
14_Circulation	NO (-100%)	NO
14_Circulation	N/A	N/A
15_Stair	N/A	N/A
15_Circulation	N/A	N/A
15_Circulation	N/A	N/A
15_Circulation	NO (-100%)	NO
15_Circulation	N/A	N/A
16_Stair	N/A	N/A
16_Circulation	N/A	N/A
16_Circulation	N/A	N/A
16_Circulation	N/A	N/A
16_Circulation	N/A	N/A
16_Circulation	N/A	N/A
16_Circulation	N/A	N/A
16_Circulation	N/A	N/A
16_Circulation	N/A	N/A
16_Circulation	N/A	N/A
16_Circulation	N/A	N/A
16_Circulation	NO (-100%)	NO
16_Circulation	N/A	N/A
16_Circulation	NO (-100%)	NO
17_Stair	N/A	N/A
17_Circulation	N/A	N/A
17_Circulation	NO (-100%)	NO
17_Circulation	N/A	N/A
17_Circulation	N/A	N/A
18_Circulation	N/A	N/A
18_Stair	N/A	N/A
18_Circulation	N/A	N/A
18_Circulation	N/A	N/A
18_Circulation	NO (-100%)	NO
19_Circulation	NO (-100%)	NO
19_Circulation	N/A	N/A
19_Stair	N/A	N/A
19_Circulation	N/A	N/A
19_Circulation	NO (-100%)	NO
20_Circulation	NO (-79.7%)	YES
20_Circulation	NO (-79.1%)	YES
20_Circulation	N/A	N/A
20_Circulation	N/A	N/A
21_Stair	N/A	N/A
21_Circulation	N/A	N/A
21_Circulation	N/A	N/A
21_Circulation	N/A	N/A
21_Circulation	NO (-100%)	NO
21_WC	N/A	N/A
22_Circulation	N/A	N/A
22_Stair	N/A	N/A
22_Circulation	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
22_Circulation	N/A	N/A
22_Circulation	NO (-100%)	NO
23_Stair	N/A	N/A
23_Circulation	N/A	N/A
23_Circulation	N/A	N/A
23_Circulation	N/A	N/A
23_Circulation	NO (-100%)	NO
23_Circulation	N/A	N/A
24_Circulation	N/A	N/A
24_Stair	N/A	N/A
24_Circulation	N/A	N/A
24_Circulation	N/A	N/A
24_Circulation	NO (-100%)	NO
24_Circulation	N/A	N/A
25_Stair	N/A	N/A
25_Circulation	N/A	N/A
25_Circulation	NO (-100%)	NO
25_Circulation	N/A	N/A
25_Circulation	N/A	N/A
25_Circulation	N/A	N/A
21_Plant	N/A	N/A
22_Circulation	N/A	N/A
22_Plant	N/A	N/A
20_Circulation	N/A	N/A
20_Plant	N/A	N/A
19_Circulation	N/A	N/A
18_Circulation	N/A	N/A
17_Circulation	N/A	N/A
16_Circulation	N/A	N/A
15_Circulation	N/A	N/A
14_Circulation	N/A	N/A
12_Stair	N/A	N/A
12_Circulation	N/A	N/A
12_Circulation	N/A	N/A
12_Circulation	N/A	N/A
12_Circulation	N/A	N/A
12_Cleaners	N/A	N/A
12_Circulation	NO (-99.8%)	NO
12_Server Room	N/A	N/A
12_Circulation	N/A	N/A
12_Circulation	NO (-100%)	NO
10_Stair	N/A	N/A
10_Circulation	N/A	N/A
10_Circulation	N/A	N/A
10_Circulation	N/A	N/A
10_Circulation	N/A	N/A
10_Circulation	N/A	N/A
09_Stair	N/A	N/A
09_Circulation	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
09_Circulation	N/A	N/A
09_Circulation	N/A	N/A
09_Circulation	N/A	N/A
09_Circulation	N/A	N/A
06_Stair	N/A	N/A
06_Circulation	N/A	N/A
06_Circulation	N/A	N/A
06_Circulation	N/A	N/A
06_Circulation	N/A	N/A
06_Circulation	N/A	N/A
08_Stair	N/A	N/A
08_Circulation	N/A	N/A
08_Circulation	N/A	N/A
08_Circulation	N/A	N/A
08_Circulation	N/A	N/A
08_Circulation	N/A	N/A
07_Stair	N/A	N/A
07_Circulation	N/A	N/A
07_Circulation	N/A	N/A
07_Circulation	N/A	N/A
07_Circulation	N/A	N/A
07_Circulation	N/A	N/A
04_Stair	N/A	N/A
04_Circulation	N/A	N/A
04_Circulation	N/A	N/A
04_Circulation	N/A	N/A
04_Circulation	N/A	N/A
08_Server Room	N/A	N/A
11_Stair	N/A	N/A
11_Circulation	N/A	N/A
11_Circulation	N/A	N/A
11_Circulation	N/A	N/A
11_Circulation	N/A	N/A
11_Cleaners	N/A	N/A
11_WC	N/A	N/A
11_WC	N/A	N/A
11_WC	N/A	N/A
11_Circulation	NO (-99.7%)	NO
11_Circulation	N/A	N/A
11_Server Room	N/A	N/A
11_Circulation	N/A	N/A
11_Circulation	N/A	N/A
13_Stair	N/A	N/A
13_Circulation	NO (-100%)	NO
13_Circulation	N/A	N/A
13_Circulation	N/A	N/A
13_Circulation	N/A	N/A
13_Circulation	N/A	N/A
12_Server Room	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
17_Server Room	N/A	N/A
20_Circulation	N/A	N/A
23_Server	N/A	N/A
21_Circulation	N/A	N/A
04_Perimeter-Office	NO (-16.3%)	YES
04_Perimeter-Office	NO (-35.9%)	YES
04_Perimeter-Office	NO (-11.9%)	YES
04_Perimeter-Office	NO (-25.2%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99%)	NO
04_Office-Internal	NO (-99.2%)	NO
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-14.4%)	YES
04_Perimeter-Office	NO (-33.3%)	YES
04_Perimeter-Office	NO (-11.9%)	YES
04_Perimeter-Office	NO (-24.6%)	YES
04_Office-Internal	NO (-99%)	NO
04_Office-Internal	NO (-99%)	NO
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-12.9%)	YES
04_Perimeter-Office	NO (-29.6%)	YES
04_Perimeter-Office	NO (-11.9%)	YES
04_Perimeter-Office	NO (-23.9%)	YES
04_Office-Internal	NO (-99%)	NO
04_Office-Internal	NO (-99%)	NO
04_Office-Internal	NO (-99%)	NO
04_Office-Internal	NO (-99%)	NO
04_Perimeter-Office	NO (-11.5%)	YES
04_Perimeter-Office	NO (-25.5%)	YES
04_Perimeter-Office	NO (-11.9%)	YES
04_Perimeter-Office	NO (-22.9%)	YES
04_Office-Internal	NO (-99%)	NO
04_Office-Internal	NO (-99%)	NO
04_Office-Internal	NO (-99%)	NO
04_Office-Internal	NO (-99%)	NO
04_Perimeter-Office	NO (-10.9%)	YES
04_Perimeter-Office	NO (-21.1%)	YES
04_Perimeter-Office	NO (-11.8%)	YES
04_Perimeter-Office	NO (-21.9%)	YES
04_Office-Internal	NO (-99%)	NO
04_Office-Internal	NO (-99%)	NO
04_Office-Internal	NO (-98.9%)	NO
04_Office-Internal	NO (-99%)	NO
04_Perimeter-Office	NO (-19.4%)	YES
04_Perimeter-Office	NO (-10%)	YES
04_Perimeter-Office	NO (-21.9%)	YES
04_Office-Internal	NO (-98.9%)	NO
04_Office-Internal	NO (-98.8%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
04_Office-Internal	NO (-99%)	NO
04_Perimeter-Office	NO (-26.8%)	YES
04_Perimeter-Office	NO (-19%)	YES
04_Perimeter-Office	NO (-29.2%)	YES
04_Perimeter-Office	NO (-53.5%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99%)	NO
04_Perimeter-Office	NO (-10.4%)	YES
04_Perimeter-Office	NO (-28.5%)	YES
04_Perimeter-Office	NO (-20.8%)	YES
04_Perimeter-Office	NO (-29.2%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99.2%)	NO
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-19.9%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-28.5%)	YES
04_Perimeter-Office	NO (-20.7%)	YES
04_Perimeter-Office	NO (-29.2%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99.2%)	NO
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-19.9%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-28.5%)	YES
04_Perimeter-Office	NO (-20.8%)	YES
04_Perimeter-Office	NO (-29.2%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99.2%)	NO
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-19.8%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-28.5%)	YES
04_Perimeter-Office	NO (-20.8%)	YES
04_Perimeter-Office	NO (-29.2%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99.2%)	NO
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-19.8%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-28.5%)	YES
04_Perimeter-Office	NO (-20.8%)	YES
04_Perimeter-Office	NO (-29.2%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99.2%)	NO
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-19.8%)	YES
04_Office-Internal	NO (-99.1%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
04_Perimeter-Office	NO (-28.5%)	YES
04_Perimeter-Office	NO (-20.8%)	YES
04_Perimeter-Office	NO (-29.2%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99.2%)	NO
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-19.8%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-28.5%)	YES
04_Perimeter-Office	NO (-20.8%)	YES
04_Perimeter-Office	NO (-29.2%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99.2%)	NO
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-19.7%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-28.5%)	YES
04_Perimeter-Office	NO (-27.5%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-17.9%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-28.5%)	YES
04_Perimeter-Office	NO (-27.6%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-18%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-28.5%)	YES
04_Perimeter-Office	NO (-20.7%)	YES
04_Perimeter-Office	NO (-29.2%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-19.8%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-27.5%)	YES
04_Perimeter-Office	NO (-19.5%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99%)	NO
04_Perimeter-Office	NO (-19.8%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-27.6%)	YES
04_Perimeter-Office	NO (-19.5%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99%)	NO
04_Perimeter-Office	NO (-19.9%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-28.5%)	YES
04_Perimeter-Office	NO (-20.8%)	YES
04_Perimeter-Office	NO (-29.2%)	YES

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99.2%)	NO
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-19.8%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-20.8%)	YES
04_Perimeter-Office	NO (-28.3%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-18.5%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-20.7%)	YES
04_Perimeter-Office	NO (-28.4%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-18.6%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-28.5%)	YES
04_Perimeter-Office	NO (-20.7%)	YES
04_Perimeter-Office	NO (-29.2%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99.2%)	NO
04_Office-Internal	NO (-99.1%)	NO
04_Perimeter-Office	NO (-19.8%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-18.9%)	YES
04_Office-Internal	NO (-54.2%)	YES
04_Office-Internal	NO (-25.4%)	YES
04_Office-Internal	NO (-38.6%)	YES
04_Office-Internal	NO (-25.2%)	YES
04_Office-Internal	NO (-36.9%)	YES
04_Office-Internal	NO (-99.6%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.3%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.3%)	NO
04_Office-Internal	NO (-99.4%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.3%)	NO
04_Office-Internal	NO (-99.4%)	NO
04_Office-Internal	NO (-99.4%)	NO
04_Office-Internal	NO (-99.4%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.3%)	NO
04_Office-Internal	NO (-99.3%)	NO
04_Office-Internal	NO (-99.4%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.3%)	NO
04_Office-Internal	NO (-98.7%)	NO
04_Office-Internal	NO (-96.7%)	NO
04_Office-Internal	NO (-99.4%)	NO
04_Office-Internal	NO (-99.4%)	NO
04_Office-Internal	NO (-99%)	NO
04_Office-Internal	NO (-98.5%)	NO
04_Office-Internal	NO (-99.6%)	NO
04_Office-Internal	NO (-98.9%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.6%)	NO
04_Office-Internal	NO (-99.6%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.7%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.6%)	NO
04_Office-Internal	NO (-99.7%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.6%)	NO
04_Office-Internal	NO (-99.6%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.7%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.6%)	NO
04_Office-Internal	NO (-99.7%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.6%)	NO
04_Office-Internal	NO (-99.6%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-98.4%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99.6%)	NO
04_Office-Internal	NO (-99.6%)	NO
04_Office-Internal	NO (-99.5%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
04_Office-Internal	NO (-99%)	NO
04_Office-Internal	NO (-99.6%)	NO
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-98.8%)	NO
04_Office-Internal	NO (-99.6%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.2%)	NO
04_Office-Internal	NO (-99.6%)	NO
04_Office-Internal	NO (-99.6%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.7%)	NO
04_Office-Internal	NO (-99.7%)	NO
04_Office-Internal	NO (-99.6%)	NO
04_Office-Internal	NO (-98.5%)	NO
04_Office-Internal	NO (-99.6%)	NO
04_Office-Internal	NO (-99.7%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-98.9%)	NO
04_Office-Internal	NO (-99.7%)	NO
04_Office-Internal	NO (-99.7%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.7%)	NO
04_Office-Internal	NO (-99.7%)	NO
04_Office-Internal	NO (-99.6%)	NO
04_Circulation	N/A	N/A
04_Circulation	NO (-99.9%)	NO
04_Circulation	NO (-99.9%)	NO
04_Circulation	NO (-99.7%)	NO
04_Circulation	NO (-99.8%)	NO
04_Office-Perimeter	NO (-27.4%)	YES
04_Office-Perimeter	NO (-2.6%)	YES
04_Office-Perimeter	YES (+8.8%)	YES
04_Office-Perimeter	YES (+18.5%)	YES
04_Office_Inner	NO (-99%)	NO
04_Office_Inner	NO (-98.7%)	NO
04_Office_Inner	NO (-98.8%)	NO
04_Office_Inner	NO (-98.7%)	NO
05_Stair	N/A	N/A
05_Circulation	N/A	N/A
05_Circulation	N/A	N/A
05_Circulation	N/A	N/A
05_Circulation	N/A	N/A
05_Circulation	N/A	N/A
05_Circulation	NO (-99.9%)	NO
05_Circulation	NO (-99.9%)	NO
05_Circulation	NO (-99.7%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
05_Circulation	NO (-99.8%)	NO
05_Office-Perimeter	NO (-24.3%)	YES
05_Office-Perimeter	NO (-2.1%)	YES
05_Office-Perimeter	YES (+5.3%)	YES
05_Office-Perimeter	YES (+18.9%)	YES
05_Office_Inner	NO (-99%)	NO
05_Office_Inner	NO (-98.7%)	NO
05_Office_Inner	NO (-98.8%)	NO
05_Office_Inner	NO (-98.7%)	NO
30_Circulation	N/A	N/A
30_Circulation	N/A	N/A
30_Circulation	N/A	N/A
30_Circulation	N/A	N/A
30_Stair	N/A	N/A
30_Office-Internal	NO (-98.8%)	NO
30_Office-Internal	NO (-98.2%)	NO
30_Office-Internal	NO (-99.1%)	NO
30_Plantroom	N/A	N/A
30_Office-Internal	NO (-99.3%)	NO
30_Circulation	N/A	N/A
30_Office-Internal	NO (-99.2%)	NO
30_Plantroom	NO (-100%)	NO
30_Office-Internal	NO (-98.2%)	NO
30_Office-Internal	NO (-98.2%)	NO
30_Office-Internal	NO (-98.3%)	NO
30_Perimeter-Office	NO (-13%)	YES
30_Perimeter-Office	NO (-14%)	YES
30_Perimeter-Office	NO (-22.9%)	YES
30_Perimeter-Office	NO (-23.6%)	YES
28_Circulation	N/A	N/A
28_Circulation	N/A	N/A
28_Stair	N/A	N/A
28_Circulation	N/A	N/A
28_Circulation	N/A	N/A
28_Circulation	N/A	N/A
04_Perimeter-Office	NO (-25.9%)	YES
04_Perimeter-Office	NO (-17.6%)	YES
04_Perimeter-Office	NO (-26.6%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99%)	NO
04_Perimeter-Office	NO (-16.6%)	YES
04_Office-Internal	NO (-99.1%)	NO
04_Office-Internal	NO (-99.5%)	NO
04_Office-Internal	NO (-99.7%)	NO
04_Office-Internal	NO (-99.7%)	NO
04_Office-Internal	NO (-99.6%)	NO
31_Stair	N/A	N/A
31_Circulation	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
31_Circulation	N/A	N/A
00_Public	NO (-40.3%)	YES
00_BOH	N/A	N/A
00_BOH	N/A	N/A
00_BOH	N/A	N/A
B1_Showers	N/A	N/A
00_Kitchen	N/A	N/A
00_Circulation	N/A	N/A
00_Open-Lobby	NO (-0.5%)	YES
00_Meeting-Office	NO (-57.4%)	YES
00_BOH	N/A	N/A
00_Class-E	NO (-22.1%)	YES
00_BOH	N/A	N/A
00_Meeting-Office	NO (-55.1%)	YES
00_Store	N/A	N/A
00_Public	NO (-43.9%)	YES
00_Open-Lobby	YES (+7.3%)	YES
00_Store	N/A	N/A
00_UKPN	N/A	N/A
00_BOH	NO (-100%)	NO
00_Meeting-Office	NO (-57.4%)	YES
00_Meeting-Office	NO (-55%)	YES
00_Meeting-Office	NO (-38%)	YES
00_Meeting-Office	NO (-100%)	NO
00_Meeting-Office	N/A	N/A
00_Meeting-Office	NO (-5.8%)	YES
00_Class-E	NO (-42%)	YES
00_Meeting-Office	NO (-6.6%)	YES
00_Class-E	NO (-4.4%)	YES
00_Class-E	YES (+35.2%)	YES
00_Cleaners	N/A	N/A
00_Class-E	NO (-0.5%)	YES
00_Class-E	YES (+40.4%)	YES
B1_Locker-Room	N/A	N/A
B1_Showers	N/A	N/A
B1_Storage	N/A	N/A
B1_Cleaners	N/A	N/A
B1_Storage	N/A	N/A
B1_Showers	N/A	N/A
B1_Cleaners	N/A	N/A
B1_Dockmaster	N/A	N/A
B2_Refuse-Store	N/A	N/A
B1_Bike-Store	N/A	N/A
B1_Showers	N/A	N/A
B1_Showers	NO (-100%)	NO
B1_Showers	N/A	N/A
B1_Showers	N/A	N/A
B1_Showers	N/A	N/A
B1_Showers	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
00_Circulation	N/A	N/A
00_Open-Lobby	NO (-14.3%)	YES
00_Open-Lobby	YES (+19.1%)	YES
00_Circulation	NO (-12.5%)	YES

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^2]	73247.3	73247.3
External area [m^2]	41944.5	41944.5
Weather	LON	LON
Infiltration [m^3/hm^2@ 50Pa]	3	3
Average conductance [W/K]	33366	17238.2
Average U-value [W/m^2K]	0.8	0.41
Alpha value* [%]	0.59	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
91	**Offices and Workshop Businesses**
	General Industrial and Special Industrial Groups
	Storage or Distribution
	Hotels
	Residential Institutions: Hospitals and Care Homes
	Residential Institutions: Residential Schools
9	**Residential Institutions: Universities and Colleges**
	Secure Residential Institutions
	Residential Spaces
	Non-residential Institutions: Community/Day Centre
	Non-residential Institutions: Libraries, Museums, and Galleries
	Non-residential Institutions: Education
	Non-residential Institutions: Primary Health Care Building
	Non-residential Institutions: Crown and County Courts
	General Assembly and Leisure, Night Clubs, and Theatres
	Others: Passenger Terminals
	Others: Emergency Services
	Others: Miscellaneous 24hr Activities
	Others: Car Parks 24 hrs
	Others: Stand Alone Utility Block

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

	Actual	Notional
Heating	2.09	0.25
Cooling	3.94	6.61
Auxiliary	7.24	8.19
Lighting	7.27	10.71
Hot water	3.85	3.22
Equipment*	46.61	46.61
TOTAL**	**24.37**	**28.98**

* 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	0.24	0
Wind turbines	0	0
CHP generators	0	0
Solar thermal systems	0	0
Displaced electricity	*0.24*	*0*

Energy & CO_2 Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m^2]	92.98	112.77
Primary energy [kWh_{PE}/m^2]	35.49	42.47
Total emissions [kg/m^2]	3.24	3.84

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 (variable fresh air rate), [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
	Actual	10.5	30	0.8	1.8	11.2	3.53	4.69	3.53	4.69
	Notional	1	85.2	0.1	5.1	6.3	2.78	4.63	----	----
[ST] Chilled ceilings/passive chilled beams & disp. vent., [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
	Actual	24.6	63.9	1.9	3.8	7.6	3.53	4.69	3.53	4.69
	Notional	2.2	66.9	0.2	4	8.4	2.78	4.63	----	----
[ST] Fan coil systems, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
	Actual	41.8	96.1	3.3	5.7	11.6	3.53	4.69	3.53	4.69
	Notional	6.9	134.2	0.7	8.1	9.9	2.78	4.63	----	----
[ST] Fan coil systems, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
	Actual	32.4	96.8	2.5	5.7	10.9	3.53	4.69	3.53	4.69
	Notional	3.3	154.6	0.3	9.3	9.9	2.78	4.63	----	----
[ST] Chilled ceilings/passive chilled beams & disp. vent., [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
	Actual	33.8	80.4	2.7	4.8	7.2	3.53	4.69	3.53	4.69
	Notional	2.9	134.2	0.3	8	10	2.78	4.63	----	----
[ST] Fan coil systems, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
	Actual	22.4	120.3	1.8	7.1	11.6	3.53	4.69	3.53	4.69
	Notional	1.1	153.2	0.1	9.2	10.1	2.78	4.63	----	----
[ST] Chilled ceilings/passive chilled beams & disp. vent., [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
	Actual	27.8	14.8	2.2	0.9	6.1	3.53	4.69	3.53	4.69
	Notional	1.2	43.9	0.1	2.6	6.8	2.78	4.63	----	----
[ST] Chilled ceilings/passive chilled beams & disp. vent., [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
	Actual	49.5	95	3.9	5.6	7.3	3.53	4.69	3.53	4.69
	Notional	7.7	153.4	0.8	9.2	10.3	2.78	4.63	----	----
[ST] No Heating or Cooling										
	Actual	0	0	0	0	0	0	0	0	0
	Notional	0	0	0	0	0	0	0	----	----

Key to terms

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