

Project name

Holiday inn BE Lean

As built

Date: Fri Jun 07 09:43:12 2024

Administrative information

Building Details

Address: 30 Jamestown Road, London, NW1 7BY

Certifier details

Name: Name

Telephone number: Phone

Address: Street Address, 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

Foundation area [m²]: 906.18The CO₂ emission and primary energy rates of the building must not exceed the targets

The building does not comply with England Building Regulations Part L 2021

Target CO ₂ emission rate (TER), kgCO ₂ /m ² annum	39.44
Building CO ₂ emission rate (BER), kgCO ₂ /m ² annum	54.35
Target primary energy rate (TPER), kWh _{PE} /m ² annum	235.25
Building primary energy rate (BPER), kWh _{PE} /m ² annum	352.28
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-Limit}	U _{a-Calc}	U _{i-Calc}	First surface with maximum value
Walls*	0.26	0.35	0.35	BS000002:Surf[1]
Floors	0.18	0.25	0.25	BS000002:Surf[0]
Pitched roofs	0.16	-	-	No pitched roofs in building
Flat roofs	0.18	0.24	0.25	BS00000A:Surf[1]
Windows** and roof windows	1.6	2.08	2.2	BS000026: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-Limit} = Limiting area-weighted average U-values [W/(m²K)]U_{i-Calc} = Calculated maximum individual element U-values [W/(m²K)]U_{a-Calc} = Calculated area-weighted average U-values [W/(m²K)]

* 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/m²K

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	10

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	<0.9

1- Main system (Be lean)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.85	3	0	1.9	0.89
Standard value	0.93*	4.5**	N/A	2^	N/A

Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system YES

* Standard shown is for gas single boiler systems <=2 MW output and overall for multi-boiler systems. For single boiler systems >2 MW or any individual boiler in a multi-boiler system, limiting efficiency is 0.88.

** Standard shown is for air-cooled chillers >=400 kW. For chillers <400 kW, limiting SEER is 4.

^ 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	ID of system type	SFP [W/(l/s)]									HR efficiency	
		A	B	C	D	E	F	G	H	I	Zone	Standard
	Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1		
Corridor		-	-	-	-	-	-	-	1.9	-	-	N/A
Corridor		-	-	-	-	-	-	-	1.9	-	-	N/A
Corridor		-	-	-	-	-	-	-	1.9	-	-	N/A
GYM		-	-	-	-	-	-	-	1.9	-	-	N/A
office		-	-	-	-	-	-	-	1.9	-	-	N/A
Restaurant		-	-	-	-	-	-	-	1.9	-	-	N/A
Buffet area		-	-	-	-	-	-	-	1.9	-	-	N/A
Plant Room		-	-	-	-	-	-	-	1.9	-	-	N/A
Store		-	-	-	-	-	-	-	1.9	-	-	N/A
office		-	-	-	-	-	-	-	1.9	-	-	N/A
Stairwell		-	-	-	-	-	-	-	1.9	-	-	N/A
Corridor		-	-	-	-	-	-	-	1.9	-	-	N/A
Store		-	-	-	-	-	-	-	1.9	-	-	N/A
Server Room		-	-	-	-	-	-	-	1.9	-	-	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
Lobby	-	-	-	-	-	-	-	1.9	-	-	N/A
Corridor	-	-	-	-	-	-	-	1.9	-	-	N/A
Lobby	-	-	-	-	-	-	-	1.9	-	-	N/A
WC	-	-	-	-	-	-	-	1.9	-	-	N/A
WC	-	-	-	-	-	-	-	1.9	-	-	N/A
WC	-	-	-	-	-	-	-	1.9	-	-	N/A
Stairwell	-	-	-	-	-	-	-	1.9	-	-	N/A
Corridor	-	-	-	-	-	-	-	1.9	-	-	N/A
WC	-	-	-	-	-	-	-	1.9	-	-	N/A
WC	-	-	-	-	-	-	-	1.9	-	-	N/A
UKPN Sub Station	-	-	-	-	-	-	-	1.9	-	-	N/A
Switch room	-	-	-	-	-	-	-	1.9	-	-	N/A
pantry	-	-	-	-	-	-	-	1.9	-	-	N/A
dish left	-	-	-	-	-	-	-	1.9	-	-	N/A
Dish Wash/Pantry	-	-	-	-	-	-	-	1.9	-	-	N/A
Store	-	-	-	-	-	-	-	1.9	-	-	N/A
Double Height Event Space	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Corridor	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Stairs	-	-	-	-	-	-	-	1.9	-	-	N/A
Office	-	-	-	-	-	-	-	1.9	-	-	N/A
store	-	-	-	-	-	-	-	1.9	-	-	N/A
Office	-	-	-	-	-	-	-	1.9	-	-	N/A
Lobby	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Stairs	-	-	-	-	-	-	-	1.9	-	-	N/A
plant room	-	-	-	-	-	-	-	1.9	-	-	N/A
Store	-	-	-	-	-	-	-	1.9	-	-	N/A
Bar	-	-	-	-	-	-	-	1.9	-	-	N/A
Store	-	-	-	-	-	-	-	1.9	-	-	N/A
WC	-	-	-	-	-	-	-	1.9	-	-	N/A
WC	-	-	-	-	-	-	-	1.9	-	-	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
WC	-	-	-	-	-	-	-	1.9	-	-	N/A
Store	-	-	-	-	-	-	-	1.9	-	-	N/A
GF	-	-	-	-	-	-	-	1.9	-	-	N/A
office (RECEP)	-	-	-	-	-	-	-	1.9	-	-	N/A
(plant Room) shutter area	-	-	-	-	-	-	-	1.9	-	-	N/A
Corridor	-	-	-	-	-	-	-	1.9	-	-	N/A
Stairs	-	-	-	-	-	-	-	1.9	-	-	N/A
Lobby	-	-	-	-	-	-	-	1.9	-	-	N/A
Meeting Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Refuse area	-	-	-	-	-	-	-	1.9	-	-	N/A
Corridor	-	-	-	-	-	-	-	1.9	-	-	N/A
office (BOH)	-	-	-	-	-	-	-	1.9	-	-	N/A
Service Area	-	-	-	-	-	-	-	1.9	-	-	N/A
store	-	-	-	-	-	-	-	1.9	-	-	N/A
store	-	-	-	-	-	-	-	1.9	-	-	N/A
office (HR)	-	-	-	-	-	-	-	1.9	-	-	N/A
GF	-	-	-	-	-	-	-	1.9	-	-	N/A
Lobby	-	-	-	-	-	-	-	1.9	-	-	N/A
Corridor	-	-	-	-	-	-	-	1.9	-	-	N/A
Kitchen	-	-	-	-	-	-	-	1.9	-	-	N/A
store	-	-	-	-	-	-	-	1.9	-	-	N/A
Stairs	-	-	-	-	-	-	-	1.9	-	-	N/A
store	-	-	-	-	-	-	-	1.9	-	-	N/A
store	-	-	-	-	-	-	-	1.9	-	-	N/A
Glass House	-	-	-	-	-	-	-	1.9	-	-	N/A
Bar	-	-	-	-	-	-	-	1.9	-	-	N/A
store	-	-	-	-	-	-	-	1.9	-	-	N/A
Corridor	-	-	-	-	-	-	-	1.9	-	-	N/A
Corridor	-	-	-	-	-	-	-	1.9	-	-	N/A
seating area	-	-	-	-	-	-	-	1.9	-	-	N/A
store	-	-	-	-	-	-	-	1.9	-	-	N/A
Lobby	-	-	-	-	-	-	-	1.9	-	-	N/A
Lobby	-	-	-	-	-	-	-	1.9	-	-	N/A
Lounge Transitional zone	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Stairs	-	-	-	-	-	-	-	1.9	-	-	N/A
Corridor	-	-	-	-	-	-	-	1.9	-	-	N/A
Lobby	-	-	-	-	-	-	-	1.9	-	-	N/A
Corridor	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Stairs	-	-	-	-	-	-	-	1.9	-	-	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
Services	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Store	-	-	-	-	-	-	-	1.9	-	-	N/A
Stairs	-	-	-	-	-	-	-	1.9	-	-	N/A
Service	-	-	-	-	-	-	-	1.9	-	-	N/A
Stairs	-	-	-	-	-	-	-	1.9	-	-	N/A
Lobby	-	-	-	-	-	-	-	1.9	-	-	N/A
Corridor	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Stairs	-	-	-	-	-	-	-	1.9	-	-	N/A
corridor	-	-	-	-	-	-	-	1.9	-	-	N/A
lobby	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Stairs	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Store	-	-	-	-	-	-	-	1.9	-	-	N/A
Stairs	-	-	-	-	-	-	-	1.9	-	-	N/A
Service	-	-	-	-	-	-	-	1.9	-	-	N/A
Stairs	-	-	-	-	-	-	-	1.9	-	-	N/A
Lobby	-	-	-	-	-	-	-	1.9	-	-	N/A
Corridor	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Stairs	-	-	-	-	-	-	-	1.9	-	-	N/A
Corridor	-	-	-	-	-	-	-	1.9	-	-	N/A
Lobby	-	-	-	-	-	-	-	1.9	-	-	N/A
Corridor	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Stairs	-	-	-	-	-	-	-	1.9	-	-	N/A
Services	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest room	-	-	-	-	-	-	-	1.9	-	-	N/A
Reception	-	-	-	-	-	-	-	1.9	-	-	N/A
Reception	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A
plant room	-	-	-	-	-	-	-	1.9	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency		
	ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1			
corridor	-	-	-	-	-	-	-	1.9	-	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	-	N/A
Guest Room	-	-	-	-	-	-	-	1.9	-	-	-	N/A
corridor	-	-	-	-	-	-	-	1.9	-	-	-	N/A
corridor	-	-	-	-	-	-	-	1.9	-	-	-	N/A

General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m ²]
Standard value	95	80	0.3	
Corridor	101	-	-	
Corridor	88	-	-	
Corridor	101	-	-	
GYM	65	-	-	
office	56	-	-	
Restaurant	58	95	1.263	
Buffet area	65	95	1.263	
Plant Room	42	-	-	
Store	49	-	-	
office	47	-	-	
Stairwell	74	-	-	
Corridor	120	-	-	
Store	52	-	-	
Server Room	54	-	-	
Lobby	108	-	-	
Corridor	82	-	-	
Lobby	174	-	-	
WC	117	-	-	
WC	107	-	-	
WC	108	-	-	
Stairwell	74	-	-	
Corridor	96	-	-	
WC	75	-	-	
WC	76	-	-	
UKPN Sub Station	49	-	-	
Switch room	52	-	-	
panty	62	-	-	
dish left	169	-	-	
Dish Wash/Pantry	68	-	-	
Store	72	-	-	
Double Height Event Space	64	-	-	
Guest Room	64	-	-	
Guest Room	68	-	-	
Guest Room	68	-	-	

General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m ²]
	Standard value	95	80	0.3
Corridor		82	-	-
Guest Room		66	-	-
Guest Room		67	-	-
Guest Room		67	-	-
Guest Room		67	-	-
Guest Room		66	-	-
Guest Room		68	-	-
Stairs		68	-	-
Office		46	-	-
store		54	-	-
Office		45	-	-
Lobby		97	-	-
Guest Room		69	-	-
Guest Room		69	-	-
Guest Room		67	-	-
Guest Room		68	-	-
Stairs		71	-	-
plant room		42	-	-
Store		62	-	-
Bar		78	95	1.263
Store		54	-	-
WC		77	-	-
WC		80	-	-
WC		119	-	-
Store		49	-	-
GF		89	-	-
office (RECEP)		46	-	-
(plant Room) shutter area		49	-	-
Corridor		101	-	-
Stairs		71	-	-
Lobby		98	-	-
Meeting Room		47	-	-
Refuse area		47	-	-
Corridor		103	-	-
office (BOH)		45	-	-
Service Area		44	-	-
store		75	-	-
store		92	-	-
office (HR)		76	-	-
GF		120	-	-
Lobby		144	-	-
Corridor		107	-	-
Kitchen		60	-	-

General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m ²]
	Standard value	95	80	0.3
store		102	-	-
Stairs		96	-	-
store		73	-	-
store		77	-	-
Glass House		62	-	-
Bar		68	95	1.263
store		57	-	-
Corridor		99	-	-
Corridor		79	-	-
seating area		58	-	-
store		65	-	-
Lobby		174	-	-
Lobby		111	-	-
Lounge Transitional zone		58	-	-
Guest Room		58	-	-
Guest Room		58	-	-
Guest Room		61	-	-
Stairs		76	-	-
Corridor		112	-	-
Lobby		98	-	-
Corridor		85	-	-
Guest Room		60	-	-
Stairs		83	-	-
Services		69	-	-
Guest Room		58	-	-
Guest Room		61	-	-
Guest Room		58	-	-
Store		48	-	-
Stairs		85	-	-
Service		70	-	-
Stairs		80	-	-
Lobby		100	-	-
Corridor		82	-	-
Guest Room		59	-	-
Stairs		69	-	-
corridor		91	-	-
lobby		83	-	-
Guest Room		63	-	-
Stairs		71	-	-
Guest Room		59	-	-
Guest Room		58	-	-
Guest Room		61	-	-
Store		48	-	-

General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m ²]
	Standard value	95	80	0.3
Stairs		85	-	-
Service		70	-	-
Stairs		80	-	-
Lobby		100	-	-
Corridor		82	-	-
Guest Room		58	-	-
Guest Room		58	-	-
Guest Room		61	-	-
Stairs		76	-	-
Corridor		112	-	-
Lobby		98	-	-
Corridor		85	-	-
Guest Room		60	-	-
Stairs		83	-	-
Services		69	-	-
Guest room		67	-	-
Reception		103	95	1.137
Reception		174	95	1.137
Guest Room		61	-	-
Guest Room		60	-	-
Guest Room		58	-	-
plant room		39	-	-
Guest Room		60	-	-
corridor		82	-	-
Guest Room		58	-	-
Guest Room		57	-	-
corridor		75	-	-
corridor		76	-	-

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?
Corridor	N/A	N/A
Corridor	N/A	N/A
Corridor	N/A	N/A
GYM	N/A	N/A
office	N/A	N/A
Restaurant	N/A	N/A
Buffet area	N/A	N/A
Plant Room	N/A	N/A
Store	N/A	N/A
office	N/A	N/A
Stairwell	N/A	N/A
Corridor	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Store	N/A	N/A
Server Room	N/A	N/A
Lobby	N/A	N/A
Corridor	N/A	N/A
Lobby	N/A	N/A
WC	N/A	N/A
WC	N/A	N/A
WC	N/A	N/A
Stairwell	N/A	N/A
Corridor	N/A	N/A
WC	N/A	N/A
WC	N/A	N/A
UKPN Sub Station	N/A	N/A
Switch room	N/A	N/A
pantry	N/A	N/A
dish left	N/A	N/A
Dish Wash/Pantry	N/A	N/A
Store	N/A	N/A
Double Height Event Space	YES (+237.3%)	NO
Guest Room	YES (+50.1%)	NO
Guest Room	YES (+56.1%)	NO
Guest Room	NO (-49.1%)	NO
Corridor	N/A	N/A
Guest Room	NO (-63.3%)	NO
Guest Room	NO (-61.7%)	NO
Guest Room	NO (-62.7%)	NO
Guest Room	NO (-60.8%)	NO
Guest Room	NO (-65.6%)	NO
Guest Room	NO (-56.6%)	NO
Stairs	N/A	N/A
Office	N/A	N/A
store	N/A	N/A
Office	N/A	N/A
Lobby	N/A	N/A
Guest Room	NO (-98.6%)	NO
Guest Room	NO (-97.5%)	NO
Guest Room	NO (-75.9%)	NO
Guest Room	NO (-79.6%)	NO
Stairs	N/A	N/A
plant room	NO (-38.4%)	NO
Store	N/A	N/A
Bar	N/A	N/A
Store	N/A	N/A
WC	N/A	N/A
WC	N/A	N/A
WC	N/A	N/A
Store	N/A	N/A
GF	N/A	N/A
office (RECEP)	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
(plant Room) shutter area	N/A	N/A
Corridor	N/A	N/A
Stairs	N/A	N/A
Lobby	N/A	N/A
Meeting Room	N/A	N/A
Refuse area	N/A	N/A
Corridor	N/A	N/A
office (BOH)	N/A	N/A
Service Area	N/A	N/A
store	N/A	N/A
store	N/A	N/A
office (HR)	N/A	N/A
GF	N/A	N/A
Lobby	N/A	N/A
Corridor	N/A	N/A
Kitchen	N/A	N/A
store	N/A	N/A
Stairs	N/A	N/A
store	N/A	N/A
store	N/A	N/A
Glass House	N/A	N/A
Bar	N/A	N/A
store	NO (-12.6%)	NO
Corridor	N/A	N/A
Corridor	NO (-68%)	NO
seating area	YES (+75.8%)	NO
store	N/A	N/A
Lobby	N/A	N/A
Lobby	N/A	N/A
Lounge Transitional zone	YES (+53.4%)	NO
Guest Room	NO (-40.4%)	NO
Guest Room	NO (-71.9%)	NO
Guest Room	NO (-54%)	NO
Stairs	N/A	N/A
Corridor	N/A	N/A
Lobby	N/A	N/A
Corridor	N/A	N/A
Guest Room	NO (-89.6%)	NO
Stairs	N/A	N/A
Services	N/A	N/A
Guest Room	NO (-76.9%)	NO
Guest Room	NO (-89.4%)	NO
Guest Room	NO (-53%)	NO
Store	N/A	N/A
Stairs	N/A	N/A
Service	N/A	N/A
Stairs	N/A	N/A
Lobby	N/A	N/A
Corridor	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Guest Room	NO (-60.5%)	NO
Stairs	N/A	N/A
corridor	N/A	N/A
lobby	N/A	N/A
Guest Room	NO (-88.4%)	NO
Stairs	N/A	N/A
Guest Room	NO (-84.3%)	NO
Guest Room	NO (-81.5%)	NO
Guest Room	NO (-89.4%)	NO
Store	N/A	N/A
Stairs	N/A	N/A
Service	N/A	N/A
Stairs	N/A	N/A
Lobby	N/A	N/A
Corridor	N/A	N/A
Guest Room	NO (-40.2%)	NO
Guest Room	NO (-71.9%)	NO
Guest Room	NO (-54%)	NO
Stairs	N/A	N/A
Corridor	N/A	N/A
Lobby	N/A	N/A
Corridor	N/A	N/A
Guest Room	NO (-89.6%)	NO
Stairs	N/A	N/A
Services	N/A	N/A
Guest room	YES (+59%)	NO
Reception	YES (+108.6%)	NO
Reception	NO (-18.8%)	NO
Guest Room	NO (-62.2%)	NO
Guest Room	NO (-60.1%)	NO
Guest Room	NO (-37.4%)	NO
plant room	N/A	N/A
Guest Room	YES (+1.7%)	NO
corridor	N/A	N/A
Guest Room	NO (-35.2%)	NO
Guest Room	YES (+18.9%)	NO
corridor	N/A	N/A
corridor	N/A	N/A

Regulation 25A: Consideration of high efficiency alternative energy systems

Were alternative energy systems considered and analysed as part of the design process?	NO
Is evidence of such assessment available as a separate submission?	NO
Are any such measures included in the proposed design?	NO

Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters

	Actual	Notional
Floor area [m ²]	8155.6	8155.6
External area [m ²]	6408	6407.4
Weather	LON	LON
Infiltration [m ³ /hm ² @ 50Pa]	10	3
Average conductance [W/K]	3436.43	2346.66
Average U-value [W/m ² K]	0.54	0.37
Alpha value* [%]	25	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
Offices and Workshop Businesses
General Industrial and Special Industrial Groups
Storage or Distribution
100 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/m²]

	Actual	Notional
Heating	13.56	2.93
Cooling	10.4	7.26
Auxiliary	59.42	19.96
Lighting	9	7.92
Hot water	193.91	164.96
Equipment*	75	75
TOTAL**	286.3	203.03

* 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/m²]

	Actual	Notional
Photovoltaic systems	0	3.66
Wind turbines	0	0
CHP generators	0	0
Solar thermal systems	0	0
<i>Displaced electricity</i>	<i>0</i>	<i>3.66</i>

Energy & CO₂ Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m ²]	127.23	130.56
Primary energy [kWh _{PE} /m ²]	352.28	235.25
Total emissions [kg/m ²]	54.35	39.44

HVAC Systems Performance

System Type	Heat dem MJ/m2	Cool dem MJ/m2	Heat con kWh/m2	Cool con kWh/m2	Aux con kWh/m2	Heat SSEFF	Cool SSEER	Heat gen SEFF	Cool gen SEER
[ST] Fan coil systems, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity									
Actual	39.2	88.1	13.6	10.4	59.4	0.8	2.35	0.85	3
Notional	9.6	121	2.9	7.3	19.7	0.91	4.63	----	----

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