

Project name

Holiday inn BE Green

As built

Date: Fri Jun 07 09:16:29 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 | 12.06 |
| Building CO ₂ emission rate (BER), kgCO ₂ /m ² annum | 15.91 |
| Target primary energy rate (TPER), kWh _{PE} /m ² annum | 131.98 |
| Building primary energy rate (BPER), kWh _{PE} /m ² annum | 173.69 |
| 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 Green)

| | Heating efficiency | Cooling efficiency | Radiant efficiency | SFP [W/(l/s)] | HR efficiency |
|--|--------------------|--------------------|--------------------|---------------|---------------|
| This system | 4.5 | 6.6 | 0 | 1.9 | 0.89 |
| 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 | 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 |
| Lobby | | - | - | - | - | - | - | - | 1.9 | - | - | N/A |
| Corridor | | - | - | - | - | - | - | - | 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 | | | |
| 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 |
| WC | - | - | - | - | - | - | - | 1.9 | - | - | - | N/A |
| Store | - | - | - | - | - | - | - | 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 |
| 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 |
| Services | - | - | - | - | - | - | - | 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 | | | |
| 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 |
| corridor | - | - | - | - | - | - | - | 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 value | 0.3 | 1.1 | 0.5 | 2.3 | 2 | 0.5 | 0.5 | 0.4 | 1 | | |
| 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 | - | - | |
| Corridor | 82 | - | - | |
| Guest Room | 66 | - | - | |

| 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 |
| 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 | - | - |
| store | | 102 | - | - |
| Stairs | | 96 | - | - |

| 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 | | 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 | - | - |
| Stairs | | 85 | - | - |
| Service | | 70 | - | - |

| 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 | | 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 |
| Store | N/A | N/A |
| Server Room | N/A | N/A |

| Zone | Solar gain limit exceeded? (%) | Internal blinds used? |
|---------------------------|--------------------------------|-----------------------|
| 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 |
| (plant Room) shutter area | N/A | N/A |
| Corridor | N/A | N/A |

| Zone | Solar gain limit exceeded? (%) | Internal blinds used? |
|--------------------------|--------------------------------|-----------------------|
| 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 |
| Guest Room | NO (-60.5%) | NO |
| Stairs | N/A | N/A |

| Zone | Solar gain limit exceeded? (%) | Internal blinds used? |
|------------|--------------------------------|-----------------------|
| 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 | 2.42 | 0.86 |
| Cooling | 4.73 | 7.26 |
| Auxiliary | 62.04 | 19.96 |
| Lighting | 9 | 7.92 |
| Hot water | 36.67 | 53.64 |
| Equipment* | 75 | 75 |
| TOTAL** | 114.86 | 89.64 |

* 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 | 0 |
| Wind turbines | 0 | 0 |
| CHP generators | 0 | 0 |
| Solar thermal systems | 0 | 0 |
| <i>Displaced electricity</i> | <i>0</i> | <i>0</i> |

Energy & CO₂ Emissions Summary

| | Actual | Notional |
|---|--------|----------|
| Heating + cooling demand [MJ/m ²] | 124.99 | 129.58 |
| Primary energy [kWh _{PE} /m ²] | 173.69 | 131.98 |
| Total emissions [kg/m ²] | 15.91 | 12.06 |

HVAC Systems Performance

| System Type | Heat dem MJ/m ² | Cool dem MJ/m ² | Heat con kWh/m ² | Cool con kWh/m ² | Aux con kWh/m ² | Heat SSEFF | Cool SSEER | Heat gen SEFF | Cool gen SEER |
|--|-------------------------------|-------------------------------|--------------------------------|--------------------------------|-------------------------------|---------------|---------------|------------------|------------------|
| [ST] Fan coil systems, [HS] ASHP, [HFT] Electricity, [CFT] Electricity | | | | | | | | | |
| Actual | 36.9 | 88.1 | 2.4 | 4.7 | 62 | 4.25 | 5.17 | 4.5 | 6.6 |
| Notional | 8.6 | 121 | 0.9 | 7.3 | 19.7 | 2.78 | 4.63 | ---- | ---- |

Key to terms

| | |
|--------------------------------|---|
| Heat dem [MJ/m ²] | = Heating energy demand |
| Cool dem [MJ/m ²] | = Cooling energy demand |
| Heat con [kWh/m ²] | = Heating energy consumption |
| Cool con [kWh/m ²] | = Cooling energy consumption |
| Aux con [kWh/m ²] | = 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 |