

7- UCL Be Clean: CAV (Locker)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	1	4.4	0	1.8	0.8
Standard value	N/A	2.55	N/A	1.6^	0.65
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
^ Limiting SFP may be extended by the amounts specified in the Non-Domestic Building Services Compliance Guide if the system includes additional components as listed in the Guide.					

8- UCL Be Clean: AHU (FCUs)+rads (L5 teaching space)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	1	3.6	0	1.8	0.8
Standard value	N/A	2.55	N/A	1.6^	0.65
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
^ Limiting SFP may be extended by the amounts specified in the Non-Domestic Building Services Compliance Guide if the system includes additional components as listed in the Guide.					

1- UCL Be Clean: DHW (toilet)

	Water heating efficiency	Storage loss factor [kWh/litre per day]
This building	1	0.005
Standard value	N/A	N/A

2- UCL Be Clean: DHW (teapoint)

	Water heating efficiency	Storage loss factor [kWh/litre per day]
This building	1	-
Standard value	N/A	N/A

Local mechanical ventilation, exhaust, and terminal units

ID	System type in Non-domestic Building Services Compliance Guide
A	Local supply or extract ventilation units serving a single area
B	Zonal supply system where the fan is remote from the zone
C	Zonal extract system where the fan is remote from the zone
D	Zonal supply and extract ventilation units serving a single room or zone with heating and heat recovery
E	Local supply and extract ventilation system serving a single area with heating and heat recovery
F	Other local ventilation units
G	Fan-assisted terminal VAV unit
H	Fan coil units
I	Zonal extract system where the fan is remote from the zone with grease filter

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1	Zone	Standard
L9_ZC_CO_E_02	-	-	-	-	-	-	-	0.2	-	-	N/A
L9_ZC_CO_E_03	-	-	-	-	-	-	-	0.2	-	-	N/A
L9_ZC_CO_E_04	-	-	-	-	-	-	-	0.2	-	-	N/A
L9_ZC_CO_E_05	-	-	-	-	-	-	-	0.2	-	-	N/A
L9_ZC_CO_E_07	-	-	-	-	-	-	-	0.2	-	-	N/A
L9_ZC_CO_E_08	-	-	-	-	-	-	-	0.2	-	-	N/A
L9_ZC_CO_E_09	-	-	-	-	-	-	-	0.2	-	-	N/A
L9_ZC_CO_E_10	-	-	-	-	-	-	-	0.2	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1	Zone	Standard
L9_ZC_CO_E_11	-	-	-	-	-	-	-	0.2	-	-	N/A
L9_ZC_CO_E_12	-	-	-	-	-	-	-	0.2	-	-	N/A
L9_ZC_CO_E_13	-	-	-	-	-	-	-	0.2	-	-	N/A
L9_ZC_CO_E_14	-	-	-	-	-	-	-	0.2	-	-	N/A
L9_ZC_CO_E_15	-	-	-	-	-	-	-	0.2	-	-	N/A
L9_ZC_CO_E_01	-	-	-	-	-	-	-	0.2	-	-	N/A
L9_ZC_WS_W_02	-	-	-	-	-	-	-	0.2	-	-	N/A
L9_ZC_WS_W_03	-	-	-	-	-	-	-	0.2	-	-	N/A
L5_ZC_Kitchen	-	-	0.4	-	-	-	-	-	0.4	-	N/A
L9_ZC_WS_W_04	-	-	-	-	-	-	-	0.2	-	-	N/A
L9_ZC_CO_E_06	-	-	-	-	-	-	-	0.2	-	-	N/A
L9_ZC_WS_W_01	-	-	-	-	-	-	-	0.2	-	-	N/A
L9_ZC_Tea_W_01	-	-	-	-	-	-	-	0.2	-	-	N/A
L9_ZC_Comms_W_01	-	-	-	0.8	-	-	-	-	-	-	N/A
L5_ZC_TS_E_TRep_2	-	-	-	-	-	-	-	0.2	-	-	N/A
L5_ZC_TS_E_TRep_1	-	-	-	-	-	-	-	0.2	-	-	N/A
L9_ZC_CO_E_16	-	-	-	-	-	-	-	0.2	-	-	N/A

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
Standard value		60	60	22	
L5_ZC_TS_E_Store		90	-	-	8
L9_ZC_CO_E_02		100	-	-	163
L9_ZC_CO_E_03		100	-	-	94
L9_ZC_CO_E_04		100	-	-	94
L9_ZC_CO_E_05		100	-	-	94
L9_ZC_CO_E_07		100	-	-	94
L9_ZC_CO_E_08		100	-	-	94
L9_ZC_CO_E_09		100	-	-	94
L9_ZC_CO_E_10		100	-	-	94
L9_ZC_CO_E_11		100	-	-	95
L9_ZC_CO_E_12		100	-	-	94
L9_ZC_CO_E_13		100	-	-	94
L9_ZC_CO_E_14		100	-	-	94
L9_ZC_CO_E_15		100	-	-	94
L9_ZC_CC_I_02		-	80	-	26
L9_ZC_CO_E_01		100	-	-	153
L9_ZC_WS_W_02		100	-	-	230
L9_ZC_WS_W_03		100	-	-	201
L9_ZC_MR_E_01		105	-	-	40
L9_ZC_MR_E_02		105	-	-	40
L9_ZC_MR_E_03		105	-	-	40
L9_ZC_MR_W_05		105	-	-	45

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	Luminaire	Lamp	Display lamp	General lighting [W]
Standard value	60	60	22	
L9_ZC_MR_W_04	105	-	-	45
L9_ZC_MR_W_06	105	-	-	45
L5_ZC_Kitchen	-	105	-	67
L9_ZC_WS_W_04	100	-	-	165
L9_ZC_CO_E_06	100	-	-	94
L9_ZC_CC_I_03	-	80	-	44
L5_ZC_WS_E_01	100	-	-	430
L5_ZC_CO_E_03	100	-	-	80
L5_ZC_CO_E_01	100	-	-	77
L5_ZC_CO_E_02	100	-	-	75
L5_ZC_CO_E_04	100	-	-	77
L5_XB_ELEC_I_01	80	-	-	11
L9_ZC_CC_I_02	-	80	-	47
L9_ZC_WS_W_01	100	-	-	213
L9_ZC_Tea_W_01	-	90	-	81
L9_XC_WC_I_01	-	100	-	30
L9_ZC_Comms_W_01	90	-	-	32
L9_ZC_Locker	100	-	-	11
L5_ZC_TS_E_TRep_2	95	-	-	307
L5_ZC_TS_E_TRep_1	95	-	-	338
L9_ZC_CC_I_04	-	80	-	41
L9_ZC_CC_I_04	-	80	-	23
L9_ZC_CC_I_04	-	80	-	41
L9_ZC_QR_1	105	-	-	40
L9_ZC_QR_2	105	-	-	40
L9_ZC_QR_3	105	-	-	40
L9_ZC_CO_E_16	100	-	-	255

Criterion 3: The spaces in the building should have appropriate passive control measures to limit solar gains

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
L9_ZC_CO_E_02	NO (-78.9%)	NO
L9_ZC_CO_E_03	NO (-38.3%)	NO
L9_ZC_CO_E_04	NO (-38.7%)	NO
L9_ZC_CO_E_05	NO (-38.7%)	NO
L9_ZC_CO_E_07	NO (-38.7%)	NO
L9_ZC_CO_E_08	NO (-38.7%)	NO
L9_ZC_CO_E_09	NO (-38.7%)	NO
L9_ZC_CO_E_10	NO (-38.7%)	NO
L9_ZC_CO_E_11	NO (-38.8%)	NO
L9_ZC_CO_E_12	NO (-38.7%)	NO
L9_ZC_CO_E_13	NO (-38.7%)	NO
L9_ZC_CO_E_14	NO (-38.6%)	NO
L9_ZC_CO_E_15	NO (-38.5%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
L9_ZC_CO_E_01	NO (-79.4%)	NO
L9_ZC_WS_W_02	NO (-6.1%)	NO
L9_ZC_WS_W_03	NO (-8.4%)	NO
L9_ZC_MR_E_01	N/A	N/A
L9_ZC_MR_E_02	N/A	N/A
L9_ZC_MR_E_03	N/A	N/A
L9_ZC_MR_W_05	N/A	N/A
L9_ZC_MR_W_04	N/A	N/A
L9_ZC_MR_W_06	N/A	N/A
L5_ZC_Kitchen	N/A	N/A
L9_ZC_WS_W_04	NO (-7.4%)	NO
L9_ZC_CO_E_06	NO (-38.7%)	NO
L5_ZC_WS_E_01	NO (-79%)	NO
L5_ZC_CO_E_03	NO (-79%)	NO
L5_ZC_CO_E_01	NO (-91.6%)	NO
L5_ZC_CO_E_02	N/A	N/A
L5_ZC_CO_E_04	N/A	N/A
L9_ZC_WS_W_01	NO (-14.5%)	NO
L9_ZC_Tea_W_01	NO (-19.7%)	NO
L9_ZC_Comms_W_01	N/A	N/A
L9_ZC_Locker	N/A	N/A
L5_ZC_TS_E_TRep_2	NO (-84.9%)	NO
L5_ZC_TS_E_TRep_1	NO (-78.1%)	NO
L9_ZC_QR_1	N/A	N/A
L9_ZC_QR_2	N/A	N/A
L9_ZC_QR_3	N/A	N/A
L9_ZC_CO_E_16	NO (-71.1%)	NO

Criterion 4: The performance of the building, as built, should be consistent with the calculated BER

Separate submission

Criterion 5: The necessary provisions for enabling energy-efficient operation of the building should be in place

Separate submission

EPBD (Recast): Consideration of alternative energy systems

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

Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters			Building Use	
	Actual	Notional	% Area	Building Type
Area [m²]	810.8	810.8		A1/A2 Retail/Financial and Professional services
External area [m²]	1087.6	1112.8		A3/A4/A5 Restaurants and Cafes/Drinking Est./Takeaways
Weather	LON	LON	1	B1 Offices and Workshop businesses
Infiltration [m³/hm²@ 50Pa]	10	3		B2 to B7 General Industrial and Special Industrial Groups
Average conductance [W/K]	752.39	477.6		B8 Storage or Distribution
Average U-value [W/m²K]	0.69	0.43		C1 Hotels
Alpha value* [%]	9.28	10		C2 Residential Institutions: Hospitals and Care Homes
				C2 Residential Institutions: Residential schools
			99	C2 Residential Institutions: Universities and colleges
				C2A Secure Residential Institutions
				Residential spaces
				D1 Non-residential Institutions: Community/Day Centre
				D1 Non-residential Institutions: Libraries, Museums, and Galleries
				D1 Non-residential Institutions: Education
				D1 Non-residential Institutions: Primary Health Care Building
				D1 Non-residential Institutions: Crown and County Courts
				D2 General Assembly and Leisure, Night Clubs, and Theatres
				Others: Passenger terminals
				Others: Emergency services
				Others: Miscellaneous 24hr activities
				Others: Car Parks 24 hrs
				Others: Stand alone utility block

Energy Consumption by End Use [kWh/m²]

	Actual	Notional
Heating	33.97	10.84
Cooling	4.91	5.68
Auxiliary	28.63	15.4
Lighting	7.7	16.69
Hot water	94.09	2
Equipment*	45.54	45.54
TOTAL **	169.3	50.61

* 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

Energy & CO₂ Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m²]	171.33	116.52
Primary energy* [kWh/m²]	277.12	128.47
Total emissions [kg/m²]	53.3	22.4

* Primary energy is net of any electrical energy displaced by CHP generators, if applicable.