ENERGY & SUSTAINABILITY ASSESSMENT

HALA WALA RESTAURANT

PROPERTY ADDRESS

235 CAMDEN HIGH ST,
LONDON,
NW1 7DU,

DATE

January 22

PREPARED BY

EAL Consult

Contents

1. EXECUTIVE SUMMARY

This Sustainability statement has been prepared to support the use of 325 Camden High Street as a restaurant. The strategy highlights how the proposed development will promote sustainability throught both design and operation and summarises the relevant regulatory and planning policies applicable and how the relevant policy targets will be addressed and achieved.

The strategy reponds to the UK Planning and regulatory framework, the National Planning Policy Framework 2021, the New London Planand Camden Local Plan 2017.

This statement outlines an overall commitment to reducing energy consumption under occupancy through the adoption of a 'Fabric First' principle, which will seek enhanced insulation standards and improved heating and lighting efficiencies in comparison to the standard requirements of Approved Document Part L2 2013.

Where an existing building is being assessed the dwelling emission rates (DER) of the notional flats and proposed flats are compared to determine the level of improvement. This is in line with Building Regulations L2B for Existing Buildings.

The report also demonstrates that the proposed restaurant, by incorporating the measures above, can achieve an average carbon emission reduction of **10.4%** on Notional Dewelling emission.

Table 1. Carbon Emission Rate

Dwelling	Notional DER	Lean DER
235 Camden High street	54.9	49.2

SAP methodology and Building regulations Part L 2013 have been used in the assessment

Table 2. Carbon Dioxide emissions after each stage of the Energy Hierarchy for the restaurant

	Regulated Carbon dioxide emissions (Tonnes CO2 per annum)
Building Regs Notional Development	8.77
After Energy demand Reduction	7.86

Table 3. Carbon Dioxide Savings from each stage of the Energy Hierarchy

	Regulated Carbon dioxide savings (Tonnes CO_2)	% Improvement

Savings from energy efficiency measures	0.91	**10.4%**

The reported improvements are deemed to be at the limit of financial viability for a minor development such as the proposal exceeded Part L requirements.

2. INTRODUCTION

Site description

The development is located at 235 Camden High Street within a walking distance to Camden Town station.

Methodology

This energy assessment outlines the energy demand from the development together with the associated CO_2 emissions, using the present Building Regulations Part L as a baseline. It demonstrates how the emissions from energy use in the development will be reduced through energy efficiency measures.

The proposed scheme is required to achieve carbon emission reduction principles in accordance with the UK Planning and regulatory framework,

The methodology employed to determine the potential CO_2 savings is in accordance with the three-step Energy Hierarchy.

- **Be Lean -** Improve the energy efficiency of the scheme;
- **Be Clean -** Supply as much of the remaining energy requirement with low carbon; technologies such as district heating if available or combined heat and power (CHP); and
- **Be Green -** Offset a proportion of the remaining carbon dioxide emissions by using renewable technologies.

The government approved Standard Assessment Procedure (SAP) methodology software (2013) has been used to determine the CO_2 emissions and energy requirements. It compares CO_2 emissions from regulated energy use (DER) with those of an equivalent dwelling built to Part L1A 2013 (TER), a notional dwelling of the same size and shape. These calculations do not include emissions from cooking or appliances.

Opportunities for incorporating features into the development that contribute to the objectives of sustainable development were explored during the design process, to ensure that where possible, the proposals achieve best practice.

3. PLANNING POLICY CONTEXT

National Planning Policy Framework 2021 – emphasised the concept of sustainable development by encouraging local authorities to adopt proactive strategies to mitigate and adapt to climate change. It recommends the move to a low carbon future by:

- Avoiding increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; and
- Contributing to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the Government's policy for national technical standards.
- To help increase the use and supply of renewable and low carbon energy and heat, plans should:
    - provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts);
    - consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and
    - identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for colocating potential heat customers and suppliers.

The London Plan 2021 provides the strategic framework for an integrated socio-economic, transportation and environmental development plan across the capital to 2050. The Plan seeks to ensure new developments are designed to enable the efficient use of energy and support the development of sustainable energy infrastructure to produce energy more efficiently. It sets out a range of policies that apply to new developments.

Policy SI 2 Minimising Greenhouse Gas Emissions:

A. Development proposals should make the fullest contribution to minimising carbon dioxide emissions in accordance with the following energy hierarchy: a) Be lean: use less energy and manage demand during operation, b) Be clean: exploit local energy resources (such as secondary heat) and supply energy efficiently and cleanly, c) Be green: maximise opportunities for renewable energy by producing, storing and using renewable energy on-site.

B. Major development proposals should include a detailed energy strategy to demonstrate how the zero-carbon target will be met within the framework of the energy hierarchy.

C. A minimum on-site reduction of at least 35 per cent beyond Building Regulations is required for major development. Residential development should achieve 10 per cent, and non-residential development should achieve 15 per cent through energy efficiency measures. Where it is clearly demonstrated that the zero-carbon target cannot be fully achieved on-site, any shortfall should be provided, in agreement with the borough, either: 1) through a cash in lieu contribution to the borough's carbon offset fund, or 2) off-site provided that an alternative proposal is identified, and delivery is certain.

D. Boroughs must establish and administer a carbon offset fund. Offset fund payments must be ring-fenced to implement projects that deliver carbon reductions. The operation of offset funds should be monitored and reported on annually.

E. Major development proposals should calculate and minimise carbon emissions from any other part of the development, including plant or equipment, that are not covered by Building Regulations, i.e. unregulated emissions.
F. Development proposals referable to the Mayor should calculate whole lifecycle carbon emissions through a nationally recognised Whole Life-Cycle Carbon Assessment and demonstrate actions taken to reduce life-cycle carbon emissions.

9.2.1 The Mayor is committed to London becoming a zero-carbon city. This will require reduction of all greenhouse gases, of which carbon dioxide is the most prominent. London's homes and workplaces are responsible for producing approximately 78 per cent of its greenhouse gas emissions. If London is to achieve its objective of becoming a zero-carbon city by 2050, new development needs to meet the requirements of this policy. Development involving major refurbishment should also aim to meet this policy.

9.2.2 The energy hierarchy should inform the design, construction, and operation of new buildings. The priority is to minimise energy demand, and then address how energy will be supplied and renewable technologies incorporated. An important aspect of managing demand will be to reduce peak energy loadings.

Policy SI 4 Managing heat risk

A. Development proposals should minimise adverse impacts on the urban heat island through design, layout, orientation, materials and the incorporation of green infrastructure.
B. Major development proposals should demonstrate through an energy strategy how they will reduce the potential for internal overheating and reliance on air conditioning systems in accordance with the following cooling hierarchy:
    1. reduce the amount of heat entering a building through orientation, shading, high albedo materials, fenestration, insulation and the provision of green infrastructure
    2. minimise internal heat generation through energy efficient design
    3. manage the heat within the building through exposed internal thermal mass and high ceilings
    4. provide passive ventilation
    5. provide mechanical ventilation
    6. provide active cooling systems.

Camden Local Plan 2017

Policy CC1 Climate change mitigation

The Council will require all development to minimise the effects of climate change and encourage all developments to meet the highest feasible environmental standards that are financially viable during construction and occupation.

We will:

a. promote zero carbon development and require all development to reduce carbon dioxide emissions through following the steps in the energy hierarchy;
b. require all major development to demonstrate how London Plan targets for carbon dioxide emissions have been met;
c. ensure that the location of development and mix of land uses minimise the need to travel by car and help to support decentralised energy networks;
d. support and encourage sensitive energy efficiency improvements to existing buildings;
e. require all proposals that involve substantial demolition to demonstrate that it is not possible to retain and improve the existing building; and
f. expect all developments to optimise resource efficiency.

For decentralised energy networks, we will promote decentralised energy by:

g. working with local organisations and developers to implement decentralised energy networks in the parts of Camden most likely to support them;
h. protecting existing decentralised energy networks (e.g. at Gower Street, Bloomsbury, King's Cross, Gospel Oak and Somers Town) and safeguarding potential network routes; and
i. requiring all major developments to assess the feasibility of connecting to an existing decentralised energy network, or where this is not possible establishing a new network.

To ensure that the Council can monitor the effectiveness of renewable and low carbon technologies, major developments will be required to install appropriate monitoring equipment.

4. ENERGY STRATEGY

The Energy strategy for the proposed development is based on the Building Regulations Part L1A; it adopts a set of principles to guide design and decisions regarding energy, balanced with the need to optimise environmental and economic benefits. It seeks to incorporate energy efficiency through the approach detailed below.

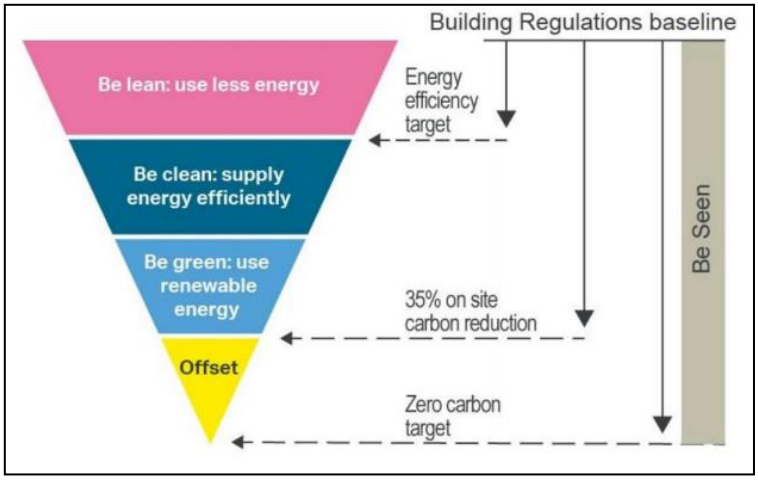

Figure 1. Energy Hierarchy

Be 'Lean' - Demand Reduction

The building fabric performance and engineering systems have been optimised in order to use less energy prior to the inclusion or consideration of Low and Zero Carbon (LZC) Technology.

Passive Design Measures:

Fabric Performance - The fabric performance values aim to reduce unwanted heat loss and heat gains, whilst maintaining a comfortable internal environment.

Table 3. Fabric energy Efficiency Standard

Thermal element	Part L1A Minimum Standard
Wall	0.30W/m^2k
Roof	0.20 W/m^2k
Floor	0.25 W/m^2k
Glazing	1.2 W/m^2k
Doors	1.2 W/m^2k

The heat loss of different building elements is dependent upon their U –value. A building with low U values provides better levels of insulation and reduced heating demand.

The development will incorporate high levels of insulation and efficient glazing; thereby reduce demand for space heating. The table below shows the U values for the development and the associated improvements over Building Regulations.

Table 4. Energy Efficient design Specification

Element	Standard	Specification
Roof	0.2 W/ m²k	0.16 W/ m²k
Glazing	1.4 W/ m²k	1.6 W/ m²k

Space Heating & Cooling - Space heating could be provided by air conditioning unit.

Efficient Lighting and Controls - Throughout the development natural lighting will be optimised. The development will also incorporate low energy light fittings throughout. All light fittings will be specified as low energy lighting and will accommodate compact fluorescent (CFLs) or fluorescent luminaries only.

Ventilation - The use of mechanical ventilation is proposed for the building.

Domestic hot water (DHW) system – domestic hot water will be instantaneous.

Be 'Clean' – Supply Energy Efficiently

The Be Clean step of the energy hierarchy refers to the use of 'Clean energy supply'. This includes, but is not limited to, the use of Combined Heat and Power (CHP) and District Heat Networks. Policy TP1 seeks for new development to promote the use of CHP and district heating.

In light of the small scale nature of the proposed development, it is apparent that the use of CHP is also technically and financially unviable in this instance.

Be 'Green' - Renewable Energy

Once energy demand reduction measures have been applied, methods for generating low and zero carbon energy can be assessed. The following renewable technologies to be considered for the project: Biomass, Water source heat pump, air source heat pump, Wind energy and solar photovoltaic panels.

In the light of the nature of the project, renewable technologies has not been considered for this project.

5. SUSTAINABLE DESIGN

The proposed project incorporates sustainable design and construction measures capable of mitigating and adapting to climate change to meet future needs. This section details site-specific initiatives which demonstrate how the conversion helps to meet the sustainability objectives set out in the National Planning Framework 2021.

Energy Use and Pollution
The design of the development has taken into consideration day lighting to habitable spaces to improve the wellbeing of occupants. Good levels of daylight will offer occupants a pleasant and highly valued connection to the outdoors and plenty of natural light. It will also reduce the use of artificial lighting and therefore energy use. All light fittings will be specified as low energy lighting.
No external lighting is required. The location and orientation of windows help to create a design that avoids overheating in the summer.

Pollution: Air, Noise and Light
The layout of the development can provide good internal air quality for customer/staff spaces and customers/staff. but not too much so as to waste heat. The use of openable windows will create horizontal airflow. By achieving a good naturally ventilated building the energy demand for air conditioning and mechanical ventilation will thereby be eliminated within the development.

The development will not increase the air pollution of the area by reducing as a start, its energy consumption, which in turn will reduce emissions that lead to air pollution.
Other measures will include:

a. Use of eco-friendly building materials
b. Non-toxic paints
c. Installation of energy efficient appliances and devices
d. Use of renewable technologies

Light pollution can best be described as artificial light that is allowed to illuminate or intrude upon areas not intended to be lit. Light in the wrong place at the wrong time can be intrusive.
Intrusive light is over bright or poorly directed lights shining onto neighbouring property which affect the neighbours' right to enjoy their property. Therefore, the proposal will incorporate lighting measures in order to avoid causing a nuisance.

Water: Water Efficiency
In domestic and non-domestic buildings, the demand for water can be reduced as much as 50% using a variety of simple and innovative strategies that are integrated into the plumbing and mechanical systems. In order to reduce water consumption the proposed development will include efficient fixtures with low flow rates. Total internal water consumption will not exceed 105 litres/person/day.

Pollution
All contractors would be required to sign up to the nationally recognised Considerate Constructors Scheme which requires, amongst other things that dust emissions, potential noise pollution, impacts on water quality and the potential for ground contamination are minimised during demolition and construction. The Contractor would also be obliged to adhere to a site specific Code of Construction Practice to reduce potential nuisance effects.

Waste

A space for reuse and recycling has been included at the back of the ground floor.

Flood Risk

The development site is located in a Low Flood Risk Area on the Environment Agency Flood Risk Map.

Biodiversity

The proposed development will incorporate measures to support and enhance the environment through consideration of the existing site, including measures to mitigate the impact of the development and enhance site biodiversity.

6. Cooling Strategy

A dynamic overheating analysis (Appendix II) has been carried out to identify the overheating risk of the restaurant HALA WALA at 235 Camden High Street., using dynamic thermal modelling. For the purpose of the assessment, the space was divided into 3 areas. 1. The café/drinking area which will be occupied during opening times. 2. The preparation zone- which forms part of the drinking area as well, and 3. The back of house zone which works as a small plant room and will not be occupied. As this zone is for the machines it can be excluded. Main focus is for the café/drinking/preparation zone.

Assessment Criteria

The performance of the units has been assessed against guidance published by the Chartered Institute of Building Services Engineers (CIBSE) guidance "TM52: The Limits of Thermal Comfort: Avoiding Overheating in European Buildings" (2013). This recommends that three criteria are assessed, two of which must be met in order to demonstrate overheating levels are within acceptable limits:

- **Criterion 1: Hours of Exceedance** – The first criterion sets a limit for the number of hours that the operative temperature can exceed the threshold comfort temperature (upper limit of the range of comfort temperature) by 1 K or more during the occupied hours of a typical non-heating season (1 May to 30 September).

- **Criterion 2: Daily Weighted Exceedance** – The second criterion deals with the severity of overheating within any one day, which can be as important as its frequency, the level of which is a function of both temperatures rise and its duration. This criterion sets a daily limit for acceptability.

- **Criterion 3: Upper Limit Temperature** – sets an absolute maximum temperature for a room where the operative temperature must not be more than 4°C greater than the maximum acceptable temperature.

Maximum acceptable temperatures are not absolute fixed values; they are calculated according to the running mean of the external temperature. This means that as external temperatures increase, the maximum acceptable operative temperature also increases.

For the purpose of this assessment, the Building Category that was chosen was II – Normal expectation (for ne buildings and renovations) – which is also CIBSE recommendation

Suggested acceptance range is 3K.

Results

- **Criterion 1** is passed in Block1:Zone1 if RunPeriod output (**Block1:Zone1 Criterion 1 CIBSE_TM52)** has a value of 0.03 or less (i.e. it must be <= 3%)

- **Criterion 2** is passed in Block1:Zone1 if no Daily output (**Block1:Zone1 Criterion 2 CIBSE_TM52)** has a value of greater than 6.

- Criterion 3 is passed in Block1:Zone1 if RunPeriod output (**Block1:Zone1 Criterion 3 CIBSE_TM52)** has a value of 0. A value of zero indicates that the Delta T does not exceed 4K.

Table 4. TM52 Results

Block	Zone	Criterion 1	Criterion 2	Criterion 3
Hala Wala Restaurant	Café/drinking	1.00	7.50	0.35
	Preparation area	1.05	7.80	0.40
	Back of house	n/a	n/a	n/a

The results demonstrate a potential overheating risk against the TM52 criteria in the restaurant.

Cooling strategy:

The following strategy has been defined according the cooling hierarchy in Policy SI4 of the London Plan.

Table 5. cooling hierarchy

Cooling Hierarchy category	HALA WALA Restaurant
1. Reduce the amount of heat entering the building through orientation, shading, high albedo material, fenestration, insulation and the provision of green infrastructure.	The development is a change of use and it is within an existing building, therefore it is not financially and technically efficient to proceed with alterations in the infrastructure.
2. Reduce the amount of heat entering the building through orientation, shading, high albedo material, fenestration, insulation and the provision of green infrastructure.	As above.
3. Minimise internal heat generation through energy efficient design.	As above.
4. Provide passive ventilation	The building has only a front door and a window in the back which can't be enough to overcome the overheating inside the restaurant
5. Provide mechanical ventilation	Mechanical ventilation can be used but it won't be enough to recover the heat generated and therefore will impact the comfort of the occupants.
6. Provide active cooling system	The use of air conditioning is proposed for the development. The model suggested is the Mitsubishi Electric Air Conditioning SLZ-M35FA COP.

The table below presents a comparison of the notional and actual cooling demand as outlined by the London Plan.

Table 6. Reporting template for cooling demand

	Area weighted average non-domestic cooling demand (MJ/m2)		Total Area weighted non-domestic cooling demand (MJ/year)		% Improvement
	Existing building	**Proposed building**	**Existing building**	**Proposed building**	
Actual	266.1	247.3	42,496.17	39,493.81	**7%**
Notional	402.7	402.7	64,311.19	64,311.19	

The development is change of use with minor alterations. Therefore, it can't be possible to meet the notional cooling demand. However, 7% level of improvement over the existing demand has been noticed as shown at table 6.

7. CONCLUSION

The development has been designed to exceed Part L1A building regulations requirements. In line with the national and local policies, regulated CO_2 emissions from the development will be reduced by **10.4%** from the notional emissions once energy efficiency measures and lean measures are taken into account.

In order to achieve the required carbon emissions reduction, the report concludes and proposes the use of energy efficient measures outlined in the section 4 of this report. The overheating analysis outlined in section 6 supports the use of air conditioning to provide a comfortable space for the customers and a staff.

An appraisal of the proposed development has been undertaken against key sustainability objectives identified from relevant policy guidance. The framework for the appraisal was guided by the National Plan. This process has ensured that the development responds to the sustainable development objectives that are relevant to the area. Key sustainability initiatives in ecology, waste management, water, health and wellbeing, materials, pollution and Surface water management have been incorporated in the design of the proposed Development.

8. APPENDIX

I. SBEM Calculation
II. Overheating calculation

BRUKL Output Document

HM Government

Compliance with England Building Regulations Part L 2013

Project name

Hala Wala Restaurant - Non-Condensing Gas

As designed

Date: Wed Jan 12 16:19:27 2022

Administrative information

Building Details

Address: 235 Camden High Street, LONDON, NW1 7BU

Certification tool

Calculation engine: SBEM

Calculation engine version: v5.6.b.0

Interface to calculation engine: Lifespan SBEM

Interface to calculation engine version: v5.6.a

BRUKL compliance check version: v5.6.b.0

Certifier details

Name: Mark Simons

Telephone number: 020 8930 5668

Address: 17 Dobree Avenue, London, NW10 2AD

Criterion 1: The calculated CO_2 emission rate for the building must not exceed the target

The building does not comply with England Building Regulations Part L 2013

CO_2 emission rate from the notional building, kgCO_2/m^2.annum	31.6
Target CO_2 emission rate (TER), kgCO_2/m^2.annum	31.6
Building CO_2 emission rate (BER), kgCO_2/m^2.annum	54.9
Are emissions from the building less than or equal to the target?	BER > TER
Are as built details the same as used in the BER calculations?	Separate submission

Criterion 2: The performance of the building fabric and fixed building services should achieve reasonable overall standards of energy efficiency

Values which do not achieve the standards in the Non-Domestic Building Services Compliance Guide and Part L are displayed in red.

Building fabric

Element	$U_{a\text{-}Limit}$	$U_{a\text{-}Calc}$	$U_{i\text{-}Calc}$	Surface where the maximum value occurs*
Wall**	0.35	0.31	0.35	"GF/01 Restaurant/North-East/Wall-External"
Floor	0.25	1.4	1.4	"GF/01 Restaurant/Floor-Internal"
Roof	0.25	2.8	2.8	"GF/01 Restaurant/Roof"
Windows***, roof windows, and rooflights	2.2	2.58	5.74	"GF/01 Restaurant/Roof/Glazing"
Personnel doors	2.2	-	-	"No external personnel doors"
Vehicle access & similar large doors	1.5	-	-	"No external vehicle access doors"
High usage entrance doors	3.5	-	-	"No external high usage entrance doors"

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

* There might be more than one surface where the maximum U-value occurs.
** 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.
N.B.: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.

Air Permeability	Worst acceptable standard	This building
m^3/(h.m^2) at 50 Pa	10	25

Building services

The standard values listed below are minimum values for efficiencies and maximum values for SFPs. Refer to the Non-Domestic Building Services Compliance Guide for details.

Whole building lighting automatic monitoring & targeting with alarms for out-of-range values	NO
Whole building electric power factor achieved by power factor correction	<0.9

1- Heating Only (Gas Non Condensing Boiler)

	Heating efficiency	**Cooling efficiency**	**Radiant efficiency**	**SFP [W/(l/s)]**	**HR efficiency**
This system	0.65	-	-	-	-
Standard value	0.91*	N/A	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
* Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

1- HWP

	Water heating efficiency	**Storage loss factor [kWh/litre per day]**
This building	Hot water provided by HVAC system	-
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**
GF/02 Kitchen	-	-	0.3	-	-	-	-	-	-	-	N/A
GF/01 Restaurant	-	-	-	0.3	-	-	-	-	-	0.75	0.5

General lighting and display lighting

Zone name	**Luminous efficacy [lm/W]**			
	Luminaire	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
BF/01 Storage	50	-	-	119
GF/02 Kitchen	-	100	-	440
GF/01 Restaurant	-	100	50	267

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?**
GF/01 Restaurant	YES (+106.8%)	YES

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

	Actual	Notional
Area [m^2]	159.7	159.7
External area [m^2]	330.5	330.5
Weather	LON	LON
Infiltration [m^3/hm^2@ 50Pa]	25	5
Average conductance [W/K]	489.32	89.59
Average U-value [W/m^2K]	1.48	0.27
Alpha value* [%]	2.31	8.47

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

Building Use

% Area	Building Type
	A1/A2 Retail/Financial and Professional services
100	**A3/A4/A5 Restaurants and Cafes/Drinking Est./Takeaways**
	B1 Offices and Workshop businesses
	B2 to B7 General Industrial and Special Industrial Groups
	B8 Storage or Distribution
	C1 Hotels
	C2 Residential Institutions: Hospitals and Care Homes
	C2 Residential Institutions: Residential schools
	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/m^2]

	Actual	Notional
Heating	92.85	0.94
Cooling	0	0
Auxiliary	3.04	6.62
Lighting	35.14	34.21
Hot water	69.49	49.63
Equipment*	80.18	80.18
TOTAL**	**200.52**	**91.4**

* 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	0
Wind turbines	0	0
CHP generators	0	0
Solar thermal systems	0	0

Energy & CO_2 Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m^2]	731.89	336.56
Primary energy* [kWh/m^2]	315.26	183.91
Total emissions [kg/m^2]	54.9	31.6

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

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] No Heating or Cooling										
	Actual	519.6	162.7	0	0	0.5	0	0	0	0
	Notional	141.3	156	0	0	0.9	0	0	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	559.3	266.1	267.9	0	7.9	0.58	0	0.65	0
	Notional	8	402.7	2.7	0	17.4	0.82	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

Key Features

The Building Control Body is advised to give particular attention to items whose specifications are better than typically expected.

Building fabric

Element	$U_{i\text{-}Typ}$	$U_{i\text{-}Min}$	Surface where the minimum value occurs*
Wall	0.23	0.3	"GF/01 Restaurant/South-West/Wall-Internal"
Floor	0.2	1.4	"GF/01 Restaurant/Floor-Internal"
Roof	0.15	2.8	"GF/01 Restaurant/Roof"
Windows, roof windows, and rooflights	1.5	1.6	"GF/01 Restaurant/North-East/Wall-External/Glazing"
Personnel doors	1.5	-	"No external personnel doors"
Vehicle access & similar large doors	1.5	-	"No external vehicle access doors"
High usage entrance doors	1.5	-	"No external high usage entrance doors"

$U_{i\text{-}Typ}$ = Typical individual element U-values [W/(m²K)] $U_{i\text{-}Min}$ = Minimum individual element U-values [W/(m²K)]

* There might be more than one surface where the minimum U-value occurs.

Air Permeability	Typical value	This building
m³/(h.m²) at 50 Pa	5	25

BRUKL Output Document

HM Government

Compliance with England Building Regulations Part L 2013

Project name

Hala Wala Restaurant - Air Con

As designed

Date: Wed Jan 12 16:20:40 2022

Administrative information

Building Details

Address: 235 Camden High Street, LONDON, NW1 7BU

Certification tool

Calculation engine: SBEM

Calculation engine version: v5.6.b.0

Interface to calculation engine: Lifespan SBEM

Interface to calculation engine version: v5.6.a

BRUKL compliance check version: v5.6.b.0

Certifier details

Name: Mark Simons

Telephone number: 020 8930 5668

Address: 17 Dobree Avenue, London, NW10 2AD

Criterion 1: The calculated CO_2 emission rate for the building must not exceed the target

The building does not comply with England Building Regulations Part L 2013

CO_2 emission rate from the notional building, $kgCO_2/m^2.annum$	41.8
Target CO_2 emission rate (TER), $kgCO_2/m^2.annum$	41.8
Building CO_2 emission rate (BER), $kgCO_2/m^2.annum$	49.2
Are emissions from the building less than or equal to the target?	BER > TER
Are as built details the same as used in the BER calculations?	Separate submission

Criterion 2: The performance of the building fabric and fixed building services should achieve reasonable overall standards of energy efficiency

Values which do not achieve the standards in the Non-Domestic Building Services Compliance Guide and Part L are displayed in red.

Building fabric

Element	$U_{a\text{-}Limit}$	$U_{a\text{-}Calc}$	$U_{i\text{-}Calc}$	Surface where the maximum value occurs*
Wall**	0.35	0.31	0.35	"GF/01 Restaurant/North-East/Wall-External"
Floor	0.25	1.4	1.4	"GF/01 Restaurant/Floor-Internal"
Roof	0.25	0.16	0.16	"GF/01 Restaurant/Roof"
Windows***, roof windows, and rooflights	2.2	2.58	5.74	"GF/01 Restaurant/Roof/Glazing"
Personnel doors	2.2	-	-	"No external personnel doors"
Vehicle access & similar large doors	1.5	-	-	"No external vehicle access doors"
High usage entrance doors	3.5	-	-	"No external high usage entrance doors"

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

* There might be more than one surface where the maximum U-value occurs.
** 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.
N.B.: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.

Air Permeability	Worst acceptable standard	This building
$m^3/(h.m^2)$ at 50 Pa	10	25

Building services

The standard values listed below are minimum values for efficiencies and maximum values for SFPs. Refer to the Non-Domestic Building Services Compliance Guide for details.

Whole building lighting automatic monitoring & targeting with alarms for out-of-range values	NO
Whole building electric power factor achieved by power factor correction	<0.9

1- Heating & Cooling (SLZ-M35FA)

	Heating efficiency	**Cooling efficiency**	**Radiant efficiency**	**SFP [W/(l/s)]**	**HR efficiency**
This system	3.71	3.2	-	-	-
Standard value	2.5*	N/A	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.					

1- Instantaneous

	Water heating efficiency	**Storage loss factor [kWh/litre per day]**
This building	1	-
Standard value	1	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**
GF/02 Kitchen	-	-	0.3	-	-	-	-	-	-	-	N/A
GF/01 Restaurant	-	-	-	0.3	-	-	-	-	-	0.75	0.5

General lighting and display lighting

	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
BF/01 Storage	50	-	-	119
GF/02 Kitchen	-	100	-	440
GF/01 Restaurant	-	100	50	267

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?**
GF/01 Restaurant	YES (+106.8%)	YES

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

	Actual	Notional
Area [m^2]	159.7	159.7
External area [m^2]	330.5	330.5
Weather	LON	LON
Infiltration [m^3/hm^2@ 50Pa]	25	5
Average conductance [W/K]	365.4	89.59
Average U-value [W/m^2K]	1.11	0.27
Alpha value* [%]	3.1	8.47

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

Building Use

% Area	Building Type
	A1/A2 Retail/Financial and Professional services
100	**A3/A4/A5 Restaurants and Cafes/Drinking Est./Takeaways**
	B1 Offices and Workshop businesses
	B2 to B7 General Industrial and Special Industrial Groups
	B8 Storage or Distribution
	C1 Hotels
	C2 Residential Institutions: Hospitals and Care Homes
	C2 Residential Institutions: Residential schools
	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/m^2]

	Actual	Notional
Heating	10.05	0.33
Cooling	5.01	10.77
Auxiliary	1.67	5.97
Lighting	35.14	34.21
Hot water	42.91	49.63
Equipment*	80.18	80.18
TOTAL**	**94.77**	**100.92**

* 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	0
Wind turbines	0	0
CHP generators	0	0
Solar thermal systems	0	0

Energy & CO_2 Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m^2]	600.39	336.68
Primary energy* [kWh/m^2]	290.96	208.09
Total emissions [kg/m^2]	49.2	41.8

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

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] No Heating or Cooling										
	Actual	460.8	135.6	0	0	0.5	0	0	0	0
	Notional	141.3	156	0	0	0.9	0	0	----	----
[ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity										
	Actual	360.7	247.3	29	14.4	3.9	3.46	4.76	3.71	6.7
	Notional	8.3	402.7	0.9	31.1	15.5	2.43	3.6	----	----

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

Key Features

The Building Control Body is advised to give particular attention to items whose specifications are better than typically expected.

Building fabric

Element	$U_{i\text{-}Typ}$	$U_{i\text{-}Min}$	Surface where the minimum value occurs*
Wall	0.23	0.3	"GF/01 Restaurant/South-West/Wall-Internal"
Floor	0.2	1.4	"GF/01 Restaurant/Floor-Internal"
Roof	0.15	0.16	"GF/01 Restaurant/Roof"
Windows, roof windows, and rooflights	1.5	1.6	"GF/01 Restaurant/North-East/Wall-External/Glazing"
Personnel doors	1.5	-	"No external personnel doors"
Vehicle access & similar large doors	1.5	-	"No external vehicle access doors"
High usage entrance doors	1.5	-	"No external high usage entrance doors"

$U_{i\text{-}Typ}$ = Typical individual element U-values [W/(m²K)] $U_{i\text{-}Min}$ = Minimum individual element U-values [W/(m²K)]

* There might be more than one surface where the minimum U-value occurs.

Air Permeability	Typical value	This building
m³/(h.m²) at 50 Pa	5	25

Program Version:**EnergyPlus, Version 8.9.0-40101eaafd, YMD=2022.01.20 22:16**

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Tabular Output Report in Format: **HTML**

Building: **Building**

Environment: **HALA WALA (O1-O1:31-12) ** LONDON/GATWICK - GBR IWEC Data WMO#=037760**

Simulation Timestamp: **2022-01-20 22:16:41**

Report: **Annual Building Utility Performance Summary**

Table of Contents

For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

Values gathered over 8760.00 hours

Site and Source Energy

	Total Energy [kWh]	Energy Per Total Building Area [kWh/m2]	Energy Per Conditioned Building Area [kWh/m2]
Total Site Energy	75221.46	321.79	321.79
Net Site Energy	75221.46	321.79	321.79
Total Source Energy	245961.67	1052.19	1052.19
Net Source Energy	245961.67	1052.19	1052.19

Site to Source Energy Conversion Factors

	Site=>Source Conversion Factor
Electricity	3.167
Natural Gas	1.084
District Cooling	1.056
District Heating	3.613
Steam	0.250
Gasoline	1.050
Diesel	1.050
Coal	1.050
Fuel Oil #1	1.050
Fuel Oil #2	1.050
Propane	1.050
Other Fuel 1	1.000
Other Fuel 2	1.000

Building Area

	Area [m2]
Total Building Area	233.76
Net Conditioned Building Area	233.76
Unconditioned Building Area	0.00

End Uses

	Electricity [kWh]	Natural Gas [kWh]	Additional Fuel [kWh]	District Cooling [kWh]	District Heating [kWh]	Water [m3]
Heating	0.00	0.00	0.00	0.00	6036.55	0.00
Cooling	0.00	0.00	0.00	350.88	0.00	0.00
Interior Lighting	11803.18	0.00	0.00	0.00	0.00	0.00
Exterior Lighting	0.00	0.00	0.00	0.00	0.00	0.00
Interior Equipment	44076.78	0.00	0.00	0.00	0.00	0.00
Exterior Equipment	0.00	0.00	0.00	0.00	0.00	0.00
Fans	0.00	0.00	0.00	0.00	0.00	0.00
Pumps	0.00	0.00	0.00	0.00	0.00	0.00
Heat Rejection	0.00	0.00	0.00	0.00	0.00	0.00
Humidification	0.00	0.00	0.00	0.00	0.00	0.00
Heat Recovery	0.00	0.00	0.00	0.00	0.00	0.00
Water Systems	0.00	0.00	0.00	0.00	12954.07	202.85
Refrigeration	0.00	0.00	0.00	0.00	0.00	0.00
Generators	0.00	0.00	0.00	0.00	0.00	0.00
Total End Uses	55879.95	0.00	0.00	350.88	18990.62	202.85

Note: District heat appears to be the principal heating source based on energy usage.

End Uses By Subcategory

	Subcategory	Electricity [kWh]	Natural Gas [kWh]	Additional Fuel [kWh]	District Cooling [kWh]	District Heating [kWh]	Water [m3]
Heating	General	0.00	0.00	0.00	0.00	6036.55	0.00
Cooling	General	0.00	0.00	0.00	350.88	0.00	0.00
Interior Lighting	General	11803.18	0.00	0.00	0.00	0.00	0.00

Exterior Lighting	General	0.00	0.00	0.00	0.00	0.00	0.00
Interior Equipment	ELECTRIC EQUIPMENT#HalaWalaRestaurant:BOH#05	29003.55	0.00	0.00	0.00	0.00	0.00
	ELECTRIC EQUIPMENT#HalaWalaRestaurant:KitchenArea#05	15073.23	0.00	0.00	0.00	0.00	0.00
Exterior Equipment	General	0.00	0.00	0.00	0.00	0.00	0.00
Fans	Ventilation (simple)	0.00	0.00	0.00	0.00	0.00	0.00
Pumps	General	0.00	0.00	0.00	0.00	0.00	0.00
Heat Rejection	General	0.00	0.00	0.00	0.00	0.00	0.00
Humidification	General	0.00	0.00	0.00	0.00	0.00	0.00
Heat Recovery	General	0.00	0.00	0.00	0.00	0.00	0.00
Water Systems	DHW HalaWalaRestaurant:SittingArea	0.00	0.00	0.00	0.00	12502.80	195.78
	DHW HalaWalaRestaurant:KitchenArea	0.00	0.00	0.00	0.00	451.27	7.07
Refrigeration	General	0.00	0.00	0.00	0.00	0.00	0.00
Generators	General	0.00	0.00	0.00	0.00	0.00	0.00

Normalized Metrics

Utility Use Per Conditioned Floor Area

	Electricity Intensity [kWh/m2]	Natural Gas Intensity [kWh/m2]	Additional Fuel Intensity [kWh/m2]	District Cooling Intensity [kWh/m2]	District Heating Intensity [kWh/m2]	Water Intensity [m3/m2]
Lighting	50.49	0.00	0.00	0.00	0.00	0.00
HVAC	0.00	0.00	0.00	1.50	81.24	0.87
Other	188.56	0.00	0.00	0.00	0.00	0.00
Total	239.05	0.00	0.00	1.50	81.24	0.87

Utility Use Per Total Floor Area

	Electricity Intensity [kWh/m2]	Natural Gas Intensity [kWh/m2]	Additional Fuel Intensity [kWh/m2]	District Cooling Intensity [kWh/m2]	District Heating Intensity [kWh/m2]	Water Intensity [m3/m2]
Lighting	50.49	0.00	0.00	0.00	0.00	0.00
HVAC	0.00	0.00	0.00	1.50	81.24	0.87
Other	188.56	0.00	0.00	0.00	0.00	0.00
Total	239.05	0.00	0.00	1.50	81.24	0.87

Electric Loads Satisfied

	Electricity [kWh]	Percent Electricity [%]
Fuel-Fired Power Generation	0.000	0.00
High Temperature Geothermal*	0.000	0.00
Photovoltaic Power	0.000	0.00
Wind Power	0.000	0.00
Power Conversion	0.000	0.00
Net Decrease in On-Site Storage	0.000	0.00
Total On-Site Electric Sources	0.000	0.00
Electricity Coming From Utility	55879.952	100.00
Surplus Electricity Going To Utility	0.000	0.00
Net Electricity From Utility	55879.952	100.00
Total On-Site and Utility Electric Sources	55879.952	100.00
Total Electricity End Uses	55879.952	100.00

On-Site Thermal Sources

	Heat [kWh]	Percent Heat [%]
Water-Side Heat Recovery	0.00	
Air to Air Heat Recovery for Cooling	0.00	
Air to Air Heat Recovery for Heating	0.00	
High-Temperature Geothermal*	0.00	
Solar Water Thermal	0.00	
Solar Air Thermal	0.00	
Total On-Site Thermal Sources	0.00	

Water Source Summary

	Water [m3]	Percent Water [%]
Rainwater Collection	0.00	0.00
Condensate Collection	0.00	0.00
Groundwater Well	0.00	0.00
Total On Site Water Sources	0.00	0.00

-	-	-
Initial Storage	0.00	0.00
Final Storage	0.00	0.00
Change in Storage	0.00	0.00
-	-	-
Water Supplied by Utility	202.85	100.00
-	-	-
Total On Site, Change in Storage, and Utility Water Sources	202.85	100.00
Total Water End Uses	202.85	100.00

Setpoint Not Met Criteria

	Degrees [deltaC]
Tolerance for Zone Heating Setpoint Not Met Time	1.11
Tolerance for Zone Cooling Setpoint Not Met Time	1.11

Comfort and Setpoint Not Met Summary

	Facility [Hours]
Time Setpoint Not Met During Occupied Heating	0.00
Time Setpoint Not Met During Occupied Cooling	0.00
Time Not Comfortable Based on Simple ASHRAE 55-2004	3370.50

Note 1: An asterisk (*) indicates that the feature is not yet implemented.

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ZoneHeatingSummaryMonthly

Report: **Input Verification and Results Summary**

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For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

General

	Value
Program Version and Build	EnergyPlus, Version 8.9.0-40101eaafd, YMD=2022.01.20 22:16
RunPeriod	HALA WALA (O1-O1:31-12)
Weather File	LONDON/GATWICK - GBR IWEC Data WMO#=037760
Latitude [deg]	51.15
Longitude [deg]	-0.2
Elevation [m]	62.00
Time Zone	0.00
North Axis Angle [deg]	0.00
Rotation for Appendix G [deg]	0.00
Hours Simulated [hrs]	8760.00

ENVELOPE

Window-Wall Ratio

	Total	North (315 to 45 deg)	East (45 to 135 deg)	South (135 to 225 deg)	West (225 to 315 deg)
Gross Wall Area [m2]	293.86	123.80	23.13	123.80	23.13
Above Ground Wall Area [m2]	293.86	123.80	23.13	123.80	23.13
Window Opening Area [m2]	15.50	0.00	15.50	0.00	0.00
Gross Window-Wall Ratio [%]	5.27	0.00	67.00	0.00	0.00
Above Ground Window-Wall Ratio [%]	5.27	0.00	67.00	0.00	0.00

Conditioned Window-Wall Ratio

	Total	North (315 to 45 deg)	East (45 to 135 deg)	South (135 to 225 deg)	West (225 to 315 deg)
Gross Wall Area [m2]	293.86	123.80	23.13	123.80	23.13
Above Ground Wall Area [m2]	293.86	123.80	23.13	123.80	23.13
Window Opening Area [m2]	15.50	0.00	15.50	0.00	0.00
Gross Window-Wall Ratio [%]	5.27	0.00	67.00	0.00	0.00
Above Ground Window-Wall Ratio [%]	5.27	0.00	67.00	0.00	0.00

Skylight-Roof Ratio

	Total
Gross Roof Area [m2]	233.76
Skylight Area [m2]	0.00
Skylight-Roof Ratio [%]	0.00

PERFORMANCE

Zone Summary

	Area [m2]	Conditioned (Y/N)	Part of Total Floor Area (Y/N)	Volume [m3]	Multipliers	Above Ground Gross Wall Area [m2]	Underground Gross Wall Area [m2]	Window Glass Area [m2]	Opening Area [m2]	Lighting [W/m2]	People [m2 per person]	Plug and Process [W/m2]
HALAWALARESTAURANT:BOH	80.83	Yes	Yes	282.89	1.00	108.74	0.00	0.00	0.00	10.0000	9.09	54.4100
HALAWALARESTAURANT:SITTINGAREA	94.27	Yes	Yes	329.94	1.00	144.78	0.00	14.85	15.50	3.7500	5.00	0.0000
HALAWALARESTAURANT:KITCHENAREA	58.67	Yes	Yes	205.33	1.00	40.34	0.00	0.00	0.00	25.0000	9.09	42.2400
Total	233.76			818.16		293.86	0.00	14.85	15.50	11.2441	6.84	29.4139
Conditioned Total	233.76			818.16		293.86	0.00	14.85	15.50	11.2441	6.84	29.4139
Unconditioned Total	0.00			0.00		0.00	0.00	0.00	0.00			
Not Part of Total	0.00			0.00		0.00	0.00	0.00	0.00			

Report: **Demand End Use Components Summary**

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For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

End Uses

	Electricity [W]	Natural Gas [W]	Propane [W]	District Cooling [W]	District Heating [W]	Water [m3/s]
Time of Peak	01-JAN-09:09	-	-	30-JUN-12:39	13-DEC-05:10	01-JAN-12:09
Heating	0.00	0.00	0.00	0.00	6741.00	0.00
Cooling	0.00	0.00	0.00	3803.06	0.00	0.00
Interior Lighting	1828.27	0.00	0.00	0.00	0.00	0.00
Exterior Lighting	0.00	0.00	0.00	0.00	0.00	0.00
Interior Equipment	6875.80	0.00	0.00	0.00	0.00	0.00
Exterior Equipment	0.00	0.00	0.00	0.00	0.00	0.00
Fans	0.00	0.00	0.00	0.00	0.00	0.00
Pumps	0.00	0.00	0.00	0.00	0.00	0.00
Heat Rejection	0.00	0.00	0.00	0.00	0.00	0.00
Humidification	0.00	0.00	0.00	0.00	0.00	0.00
Heat Recovery	0.00	0.00	0.00	0.00	0.00	0.00
Water Systems	0.00	0.00	0.00	0.00	0.00	0.00
Refrigeration	0.00	0.00	0.00	0.00	0.00	0.00
Generators	0.00	0.00	0.00	0.00	0.00	0.00
Total End Uses	8704.07	0.00	0.00	3803.06	6741.00	0.00

End Uses By Subcategory

	Subcategory	Electricity [W]	Natural Gas [W]	Propane [W]	District Cooling [W]	District Heating [W]	Water [m3/s]
Heating	General	0.00	0.00	0.00	0.00	6741.00	0.00
Cooling	General	0.00	0.00	0.00	3803.06	0.00	0.00
Interior Lighting	General	1828.27	0.00	0.00	0.00	0.00	0.00
Exterior Lighting	General	0.00	0.00	0.00	0.00	0.00	0.00
Interior Equipment	ELECTRIC EQUIPMENT#HalaWalaRestaurant:BOH#05	4397.70	0.00	0.00	0.00	0.00	0.00
	ELECTRIC EQUIPMENT#HalaWalaRestaurant:KitchenArea#05	2478.10	0.00	0.00	0.00	0.00	0.00
Exterior Equipment	General	0.00	0.00	0.00	0.00	0.00	0.00
Fans	Ventilation (simple)	0.00	0.00	0.00	0.00	0.00	0.00
Pumps	General	0.00	0.00	0.00	0.00	0.00	0.00

Heat Rejection	General	0.00	0.00	0.00	0.00	0.00	0.00
Humidification	General	0.00	0.00	0.00	0.00	0.00	0.00
Heat Recovery	General	0.00	0.00	0.00	0.00	0.00	0.00
Water Systems	DHW HalaWalaRestaurant:SittingArea	0.00	0.00	0.00	0.00	0.00	0.00
	DHW HalaWalaRestaurant:KitchenArea	0.00	0.00	0.00	0.00	0.00	0.00
Refrigeration	General	0.00	0.00	0.00	0.00	0.00	0.00
Generators	General	0.00	0.00	0.00	0.00	0.00	0.00

Report: **Source Energy End Use Components Summary**

Table of Contents

For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

Values gathered over 8760.00 hours

Source Energy End Use Components Summary

	Source Electricity [kWh]	Source Natural Gas [kWh]	Source Additional Fuel [kWh]	Source District Cooling [kWh]	Source District Heating [kWh]
Heating	0.00	0.00	0.00	0.00	21812.06
Cooling	0.00	0.00	0.00	370.42	0.00
Interior Lighting	37380.66	0.00	0.00	0.00	0.00
Exterior Lighting	0.00	0.00	0.00	0.00	0.00
Interior Equipment	139591.15	0.00	0.00	0.00	0.00
Exterior Equipment	0.00	0.00	0.00	0.00	0.00
Fans	0.00	0.00	0.00	0.00	0.00
Pumps	0.00	0.00	0.00	0.00	0.00
Heat Rejection	0.00	0.00	0.00	0.00	0.00
Humidification	0.00	0.00	0.00	0.00	0.00
Heat Recovery	0.00	0.00	0.00	0.00	0.00
Water Systems	0.00	0.00	0.00	0.00	46807.39
Refrigeration	0.00	0.00	0.00	0.00	0.00
Generators	0.00	0.00	0.00	0.00	0.00
Total Source Energy End Use Components	176971.81	0.00	0.00	370.42	68619.45

Normalized Metrics

Source Energy End Use Components Per Conditioned Floor Area

	Source Electricity [kWh/m2]	Source Natural Gas [kWh/m2]	Source Additional Fuel [kWh/m2]	Source District Cooling [kWh/m2]	Source District Heating [kWh/m2]
Heating	0.00	0.00	0.00	0.00	93.31
Cooling	0.00	0.00	0.00	1.58	0.00
Interior Lighting	159.91	0.00	0.00	0.00	0.00
Exterior Lighting	0.00	0.00	0.00	0.00	0.00
Interior Equipment	597.15	0.00	0.00	0.00	0.00
Exterior Equipment	0.00	0.00	0.00	0.00	0.00
Fans	0.00	0.00	0.00	0.00	0.00
Pumps	0.00	0.00	0.00	0.00	0.00
Heat Rejection	0.00	0.00	0.00	0.00	0.00
Humidification	0.00	0.00	0.00	0.00	0.00
Heat Recovery	0.00	0.00	0.00	0.00	0.00
Water Systems	0.00	0.00	0.00	0.00	200.24
Refrigeration	0.00	0.00	0.00	0.00	0.00
Generators	0.00	0.00	0.00	0.00	0.00
Total Source Energy End Use Components	757.06	0.00	0.00	1.58	293.55

Source Energy End Use Components Per Total Floor Area

	Source Electricity [kWh/m2]	Source Natural Gas [kWh/m2]	Source Additional Fuel [kWh/m2]	Source District Cooling [kWh/m2]	Source District Heating [kWh/m2]
Heating	0.00	0.00	0.00	0.00	93.31
Cooling	0.00	0.00	0.00	1.58	0.00
Interior Lighting	159.91	0.00	0.00	0.00	0.00
Exterior Lighting	0.00	0.00	0.00	0.00	0.00
Interior Equipment	597.15	0.00	0.00	0.00	0.00
Exterior Equipment	0.00	0.00	0.00	0.00	0.00
Fans	0.00	0.00	0.00	0.00	0.00
Pumps	0.00	0.00	0.00	0.00	0.00

Heat Rejection	0.00	0.00	0.00	0.00	0.00
Humidification	0.00	0.00	0.00	0.00	0.00
Heat Recovery	0.00	0.00	0.00	0.00	0.00
Water Systems	0.00	0.00	0.00	0.00	200.24
Refrigeration	0.00	0.00	0.00	0.00	0.00
Generators	0.00	0.00	0.00	0.00	0.00
Total Source Energy End Use Components	757.06	0.00	0.00	1.58	293.55

Report: **Component Sizing Summary** Table of Contents

For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

ZoneHVAC:IdealLoadsAirSystem

	Design Size Maximum Heating Air Flow Rate [m3/s]	User-Specified Maximum Cooling Air Flow Rate [m3/s]	Design Size Maximum Cooling Air Flow Rate [m3/s]	Design Size Maximum Total Cooling Capacity [W]
HALAWALARESTAURANT:BOH IDEAL LOADS AIR	0.088908	0.000000		
HALAWALARESTAURANT:SITTINGAREA IDEAL LOADS AIR	0.330781		0.263115	6384.89
HALAWALARESTAURANT:KITCHENAREA IDEAL LOADS AIR	0.161335	0.000000		

User-Specified values were used. Design Size values were used if no User-Specified values were provided.

Report: **Surface Shadowing Summary** Table of Contents

For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

Surfaces (Walls, Roofs, etc) that may be Shadowed by Other Surfaces

	None

Subsurfaces (Windows and Doors) that may be Shadowed by Surfaces

	Possible Shadow Receivers
HALAWALARESTAURANT:SITTINGAREA_WALL_2_0_0	HALAWALARESTAURANT:SITTINGAREA_WALL_2_0_0_0_0_0_WIN |

Report: **Adaptive Comfort Summary** Table of Contents

For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

Time Not Meeting the Adaptive Comfort Models during Occupied Hours

	ASHRAE55 90% Acceptability Limits [Hours]	ASHRAE55 80% Acceptability Limits [Hours]	CEN15251 Category I Acceptability Limits [Hours]	CEN15251 Category II Acceptability Limits [Hours]	CEN15251 Category III Acceptability Limits [Hours]
PEOPLE HALAWALARESTAURANT:BOH			1056.00	1056.00	1056.00
PEOPLE HALAWALARESTAURANT:SITTINGAREA			80.33	0.00	0.00
PEOPLE HALAWALARESTAURANT:KITCHENAREA			3277.83	2404.83	1598.83

Report: **Initialization Summary** Table of Contents

For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

Version

	Version ID
1	8.9.0.001

Timesteps per Hour

	#TimeSteps	Minutes per TimeStep {minutes}
1	6	10

System Convergence Limits

	Minimum System TimeStep {minutes}	Max HVAC Iterations	Minimum Plant Iterations	Maximum Plant Iterations
1	1	25	2	8

Simulation Control

	Do Zone Sizing	Do System Sizing	Do Plant Sizing	Do Design Days	Do Weather Simulation	Do HVAC Sizing Simulation
1	Yes	Yes	No	No	Yes	No

Output Reporting Tolerances

	Tolerance for Time Heating Setpoint Not Met	Tolerance for Zone Cooling Setpoint Not Met Time
1	1.110	1.110

Site:GroundTemperature:BuildingSurface

	Jan{C}	Feb{C}	Mar{C}	Apr{C}	May{C}	Jun{C}	Jul{C}	Aug{C}	Sep{C}	Oct{C}	Nov{C}	Dec{C}
1	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00

Site:GroundTemperature:FCfactorMethod

	Jan{C}	Feb{C}	Mar{C}	Apr{C}	May{C}	Jun{C}	Jul{C}	Aug{C}	Sep{C}	Oct{C}	Nov{C}	Dec{C}
1	4.16	5.30	7.51	9.61	13.58	15.67	16.24	15.18	12.74	9.69	6.69	4.70

Site:GroundTemperature:Shallow

	Jan{C}	Feb{C}	Mar{C}	Apr{C}	May{C}	Jun{C}	Jul{C}	Aug{C}	Sep{C}	Oct{C}	Nov{C}	Dec{C}
1	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00

Site:GroundTemperature:Deep

	Jan{C}	Feb{C}	Mar{C}	Apr{C}	May{C}	Jun{C}	Jul{C}	Aug{C}	Sep{C}	Oct{C}	Nov{C}	Dec{C}
1	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00

Site:GroundReflectance

	Jan{dimensionless}	Feb{dimensionless}	Mar{dimensionless}	Apr{dimensionless}	May{dimensionless}	Jun{dimensionless}	Jul{dimensionless}	Aug{dimensionless
1	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.2

Site:GroundReflectance:SnowModifier

	Normal	Daylighting {dimensionless}
1	2.000	2.000

Site:GroundReflectance:Snow

	Jan{dimensionless}	Feb{dimensionless}	Mar{dimensionless}	Apr{dimensionless}	May{dimensionless}	Jun{dimensionless}	Jul{dimensionless}	Aug{dimensionless
1	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.4

Site:GroundReflectance:Snow:Daylighting

	Jan{dimensionless}	Feb{dimensionless}	Mar{dimensionless}	Apr{dimensionless}	May{dimensionless}	Jun{dimensionless}	Jul{dimensionless}	Aug{dimensionless
1	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.4

Environment:Weather Station

	Wind Sensor Height Above Ground {m}	Wind Speed Profile Exponent {}	Wind Speed Profile Boundary Layer Thickness {m}	Air Temperature Sensor Height Above Ground {m}	Wind Speed Modifier Coefficient-Internal	Temperature Modifier Coefficient-Internal
1	10.000	0.140	270.000	1.500	1.586	9.750E-003

Site:Location

	Location Name	Latitude {N+/S-Deg}	Longitude {E+/W-Deg}	Time Zone Number {GMT+/-}	Elevation {m}	Standard Pressure at Elevation {Pa}	Standard RhoAir at Elevation
1	LONDON/GATWICK - GBR IWEC Data WMO#=037760	51.15	-0.18	0.00	62.00	100582	1.1955

Building Information

	Building Name	North Axis {deg}	Terrain	Loads Convergence Tolerance Value	Temperature Convergence Tolerance Value	Solar Distribution	Maximum Number of Warmup Days	Minimum Number of Warmup Days
1	Building	0.000	Suburbs	4.00000E-002	0.40000	FullExteriorWithReflectionsFromExteriorSurfaces	25	6

Inside Convection Algorithm

	Algorithm {Simple TARP CeilingDiffuser AdaptiveConvectionAlgorithm}
1	TARP

Outside Convection Algorithm

	Algorithm {SimpleCombined

	TARP MoWitt DOE-2 AdaptiveConvectionAlgorithm}
1	DOE-2

Sky Radiance Distribution

	Value {Anisotropic}
1	Anisotropic

Zone Air Solution Algorithm

	Value {ThirdOrderBackwardDifference AnalyticalSolution EulerMethod}
1	ThirdOrderBackwardDifference

Zone Air Carbon Dioxide Balance Simulation

	Simulation {Yes/No}	Carbon Dioxide Concentration
1	No	N/A

Zone Air Generic Contaminant Balance Simulation

	Simulation {Yes/No}	Generic Contaminant Concentration
1	No	N/A

Zone Air Mass Flow Balance Simulation

	Enforce Mass Balance	Adjust Zone Mixing	Adjust Zone Infiltration {AddInfiltration AdjustInfiltration None}	Infiltration Zones {MixingSourceZonesOnly AllZones}
1	No	N/A	N/A	N/A

HVACSystemRootFindingAlgorithm

	Value {RegulaFalsi Bisection BisectionThenRegulaFalsi RegulaFalsiThenBisection}
1	RegulaFalsi

Environment:Site Atmospheric Variation

	Wind Speed Profile Exponent {}	Wind Speed Profile Boundary Layer Thickness {m}	Air Temperature Gradient Coefficient {K/m}
1	0.220	370.000	6.500000E-003

Surface Geometry

	Starting Corner	Vertex Input Direction	Coordinate System	Daylight Reference Point Coordinate System	Rectangular (Simple) Surface Coordinate System
1	LowerLeftCorner	Counterclockwise	RelativeCoordinateSystem	RelativeCoordinateSystem	RelativeToZoneOrigin

Surface Heat Transfer Algorithm

	Value {CTF - ConductionTransferFunction EMPD - MoisturePenetrationDepthConductionTransferFunction CondFD - ConductionFiniteDifference HAMT - CombinedHeatAndMoistureFiniteElement} - Description	Inside Surface Max Temperature Limit{C}	Surface Convection Coefficient Lower Limit {W/m2-K}	Surface Convection Coefficient Upper Limit {W/m2-K}
1	CTF - ConductionTransferFunction	2000	1.00E-008	1000.0

Shading Summary

	Number of Fixed Detached Shades	Number of Building Detached Shades	Number of Attached Shades
1	0	0	0

Zone Summary

	Number of Zones	Number of Zone Surfaces	Number of SubSurfaces
1	3	20	1

Zone Information

	Zone Name	North Axis {deg}	Origin X-Coordinate {m}	Origin Y-Coordinate {m}	Origin Z-Coordinate {m}	Centroid X-Coordinate {m}	Centroid Y-Coordinate {m}	Centroid Z-Coordinate {m}	Type	Zone Multiplier	Zone List Multiplier	Minimum X {m}	Maximum X {m}	M

1	HALAWALARESTAURANT:BOH	0.0	0.00	0.00	0.00	-11.63	2.17	1.75	1	1	1	-17.75	-5.52	
2	HALAWALARESTAURANT:SITTINGAREA	0.0	0.00	0.00	0.00	9.37	1.47	1.75	1	1	1	-5.52	17.62	
3	HALAWALARESTAURANT:KITCHENAREA	0.0	0.00	0.00	0.00	-0.34	3.51	1.75	1	1	1	-5.52	6.01	

Zone Internal Gains Nominal

	Zone Name	Floor Area {m2}	# Occupants	Area per Occupant {m2/person}	Occupant per Area {person/m2}	Interior Lighting {W/m2}	Electric Load {W/m2}	Gas Load {W/m2}	Other Load {W/m2}	Hot Water Eq {W/m2}	Steam Equipment {W/m2}	Sum Loads per Area {W/m2}	Outdoor Controlled Baseboard Heat
1	HALAWALARESTAURANT:BOH	80.83	8.9	9.091	0.110	10.000	0.000	0.000	54.410	0.000	0.000	64.410	No
2	HALAWALARESTAURANT:SITTINGAREA	94.27	18.9	5.000	0.200	3.750	0.000	0.000	0.000	0.000	0.000	3.750	No
3	HALAWALARESTAURANT:KITCHENAREA	58.67	6.5	9.091	0.110	25.000	0.000	0.000	42.240	0.000	0.000	67.240	No

People Internal Gains Nominal

	Name	Schedule Name	Zone Name	Zone Floor Area {m2}	# Zone Occupants	Number of People {}	People/Floor Area {person/m2}	Floor Area per person {m2/person}	Fraction Radiant	Fr Con
1	PEOPLE HALAWALARESTAURANT:BOH	RESTPUB_PLANT_OCC	HALAWALARESTAURANT:BOH	80.83	8.9	8.9	0.110	9.091	0.300	
2	PEOPLE HALAWALARESTAURANT:SITTINGAREA	RESTPUB_EATDRINK_OCC	HALAWALARESTAURANT:SITTINGAREA	94.27	18.9	18.9	0.200	5.000	0.300	
3	PEOPLE HALAWALARESTAURANT:KITCHENAREA	RESTPUB_FOODPREP_OCC	HALAWALARESTAURANT:KITCHENAREA	58.67	6.5	6.5	0.110	9.091	0.300	

Lights Internal Gains Nominal

	Name	Schedule Name	Zone Name	Zone Floor Area {m2}	# Zone Occupants	Lighting Level {W}	Lights/Floor Area {W/m2}	Lights per person {W/person}	Fraction Return Air	Frac Rad
1	HALAWALARESTAURANT:BOH	RESTPUB_PLANT_LIGHT	HALAWALARESTAURANT:BOH	80.83	8.9	808.253	10.000	90.909	0.000	0
2	HALAWALARESTAURANT:SITTINGAREA	RESTPUB_FOODPREP_EQUIP	HALAWALARESTAURANT:SITTINGAREA	94.27	18.9	353.506	3.750	18.750	0.000	0
3	HALAWALARESTAURANT:KITCHENAREA	RESTPUB_FOODPREP_LIGHT	HALAWALARESTAURANT:KITCHENAREA	58.67	6.5	1466.678	25.000	227.273	0.000	0

OtherEquipment Internal Gains Nominal

	Name	Schedule Name	Zone Name	Zone Floor Area {m2}	# Zone Occupants	Equipment Level {W}	Equipment/Floor Area {W/m2}	Equipment per person {W/person}	Fractio Later
1	HALAWALARESTAURANT:BOH EQUIPMENT GAIN 1	RESTPUB_PLANT_EQUIP	HALAWALARESTAURANT:BOH	80.83	8.9	4397.705	54.410	494.636	0.00
2	HALAWALARESTAURANT:KITCHENAREA EQUIPMENT GAIN 1	RESTPUB_FOODPREP_EQUIP	HALAWALARESTAURANT:KITCHENAREA	58.67	6.5	2478.098	42.240	384.000	0.00

Construction CTF

	Construction Name	Index	#Layers	#CTFs	Time Step {hours}	ThermalConductance {w/m2-K}	OuterThermalAbsorptance	InnerThermalAbsorptance	OuterSolarAbsorptance	InnerSolarAbsorp
1	GROUND FLOOR SLAB - ENERGY CODE STANDARD - MEDIUM WEIGHT (DATA MODIFIED WHEN LOADED TO FILE)	3	2	9	0.167	0.9851	0.900	0.900	0.600	
2	FLAT ROOF U-VALUE = O.25 W/M2K	5	3	9	0.167	0.2610	0.900	0.900	0.850	
3	LIGHTWEIGHT 2 X 25MM GYPSUM PLASTERBOARD WITH 1OOMM CAVITY	7	3	6	0.167	2.857	0.900	0.900	0.500	
4	LIGHTWEIGHT 2 X 25MM GYPSUM PLASTERBOARD WITH 1OOMM CAVITY_REV	8	3	6	0.167	2.857	0.900	0.900	0.500	
5	BRICK/BLOCK WALL (INSULATED TO 1995 REGS)	9	4	16	0.167	0.3737	0.900	0.900	0.700	

Material CTF Summary

	Material Name	Thickness {m}	Conductivity {w/m-K}	Density {kg/m3}	Specific Heat {J/kg-K}	ThermalResistance {m2-K/w}
1	XPS EXTRUDED POLYSTYRENE - CO2 BLOWING_O.O3	0.0300	0.034	35.000	1400.000	0.8824
2	CAST CONCRETE_O.15	0.1500	1.130	2000.000	1000.000	0.1327
3	ASPHALT 1_O.O19	0.0190	0.700	2100.000	1000.000	0.2714E-01
4	FIBREBOARD_O.O13	0.0130	0.060	300.000	1000.000	0.2167
5	XPS EXTRUDED POLYSTYRENE - CO2 BLOWING_O.122	0.1220	0.034	35.000	1400.000	3.588
6	GYPSUM PLASTERBOARD_O.O25	0.0250	0.250	900.000	1000.000	0.1000
7	5_RVAL_2	0.0000	0.000	0.000	0.000	0.1500
8	GYPSUM PLASTERBOARD_O.O25	0.0250	0.250	900.000	1000.000	0.1000
9	GYPSUM PLASTERBOARD_O.O25	0.0250	0.250	900.000	1000.000	0.1000
10	6_RVAL_2	0.0000	0.000	0.000	0.000	0.1500
11	GYPSUM PLASTERBOARD_O.O25	0.0250	0.250	900.000	1000.000	0.1000
12	BRICKWORK OUTER_O.1	0.1000	0.840	1700.000	800.000	0.1190
13	XPS EXTRUDED POLYSTYRENE - CO2 BLOWING_O.O79	0.0790	0.034	35.000	1400.000	2.324
14	CONCRETE BLOCK (MEDIUM)_O.1	0.1000	0.510	1400.000	1000.000	0.1961
15	GYPSUM PLASTERING_O.O15	0.0150	0.400	1000.000	1000.000	0.3750E-01

CTF

	Time	Outside	Cross	Inside	Flux (except final one)
1	9	-0.41098857E-12	0.17962147E-16	-0.65407699E-15	-0.91522409E-18
2	8	0.50317512E-05	0.18064185E-13	0.72310098E-09	-0.12915720E-10
3	7	-0.17382605E-02	0.18602305E-08	-0.15734769E-02	0.28104746E-04
4	6	0.40998823E-01	0.96288494E-06	0.15355338	-0.27635588E-02
5	5	-0.39072039	0.48130882E-04	-2.8142325	0.52252163E-01
6	4	1.9092194	0.47823931E-03	20.982855	-0.40741020
7	3	-5.1682813	0.11907524E-02	-75.298423	1.5508784
8	2	7.7805104	0.73908131E-03	135.54919	-2.9980512
9	1	-6.0562793	0.85907696E-04	-117.17347	2.8024842
10	0	1.8888292	0.54548761E-06	38.604637	
11	9	-0.68002644E-09	0.29193991E-15	-0.75017424E-15	0.20875566E-15
12	8	0.33633562E-04	0.54591512E-11	0.45917573E-09	-0.17072061E-09
13	7	-0.33856107E-02	0.24685183E-07	-0.91387463E-05	0.33984264E-05
14	6	0.12382795	0.62711531E-05	0.70214493E-03	-0.27464253E-03
15	5	-2.0828732	0.24927252E-03	-0.17730255E-01	0.74399374E-02
16	4	17.143225	0.23125798E-02	0.19336227	-0.88702792E-01
17	3	-70.968743	0.56433722E-02	-1.0027052	0.51306680
18	2	147.02708	0.33881648E-02	2.5396455	-1.4746643
19	1	-143.53224	0.34907405E-03	-2.9838464	1.9973385
20	0	52.305029	0.12840910E-05	1.2825311	
21	6	0.15270800E-10	0.24002347E-11	0.15270799E-10	0.79256753E-16
22	5	-0.36318106E-05	0.24222966E-06	-0.36318106E-05	0.23374625E-10
23	4	0.47194835E-02	0.50285254E-03	0.47194835E-02	-0.31301117E-05
24	3	-0.90452582	0.52957033E-01	-0.90452582	0.14917958E-02
25	2	10.824303	0.45252512	10.824303	-0.16775603
26	1	-29.765599	0.40935750	-29.765599	0.83861398
27	0	20.777258	0.20809760E-01	20.777258	
28	6	0.15270800E-10	0.24002347E-11	0.15270799E-10	0.79256753E-16
29	5	-0.36318106E-05	0.24222966E-06	-0.36318106E-05	0.23374625E-10
30	4	0.47194835E-02	0.50285254E-03	0.47194835E-02	-0.31301117E-05
31	3	-0.90452582	0.52957033E-01	-0.90452582	0.14917958E-02
32	2	10.824303	0.45252512	10.824303	-0.16775603
33	1	-29.765599	0.40935750	-29.765599	0.83861398
34	0	20.777258	0.20809760E-01	20.777258	
35	16	0.16115602E-12	0.41704431E-18	0.40581127E-11	-0.15511673E-14
36	15	-0.64754919E-10	-0.30459086E-15	-0.73931552E-09	0.64207867E-12
37	14	0.11048038E-07	-0.81616538E-14	0.73101946E-07	-0.11381845E-09
38	13	-0.96493062E-06	0.66825758E-13	-0.42153477E-05	0.10424616E-07
39	12	0.47662777E-04	0.11121992E-10	0.15175419E-03	-0.54303067E-06
40	11	-0.14398766E-02	0.67791867E-09	-0.35708256E-02	0.17370398E-04
41	10	0.28007266E-01	0.19029858E-07	0.56568208E-01	-0.35911563E-03
42	9	-0.36186474	0.25684717E-06	-0.61468246	0.49521588E-02
43	8	3.1614693	0.17029645E-05	4.6339720	-0.46393834E-01
44	7	-18.854827	0.55531030E-05	-24.389944	0.29811112
45	6	77.073304	0.87188459E-05	89.783430	-1.3180182
46	5	-215.63037	0.62667296E-05	-230.33310	3.9978809
47	4	409.03351	0.18725703E-05	407.02196	-8.2301967

48	3	-514.17054	0.19468452E-06	-483.05229	11.225337
49	2	408.25792	0.45801736E-08	366.14172	-9.6592244
50	1	-184.75762	0.13869437E-09	-159.60432	4.7278286
51	0	36.222438	-0.26426897E-10	30.360131	

WindowConstruction

	Construction Name	Index	#Layers	Roughness	Conductance {W/m2-K}	SHGC	Solar Transmittance at Normal Incidence	Visible Transmittance at Normal Incidence
1	1001	11	3	VerySmooth	1.960	0.691	0.624	0.744

WindowMaterial:Glazing

	Material Name	Optical Data Type	Spectral Data Set Name	Thickness {m}	Solar Transmittance	Front Solar Reflectance	Back Solar Reflectance	Visible Transmittance	Front Visible Reflectance	Back Visible Reflectance	Infrared Transmittance	Front Thermal Emissivity	Back Thermal Emissivity	C
1	38	SpectralAverage		3.00000E-003	0.74000	9.00000E-002	0.10000	0.82000	0.11000	0.12000	0.00000	0.84000	0.20000	
2	2	SpectralAverage		3.00000E-003	0.83700	7.50000E-002	7.50000E-002	0.89800	8.10000E-002	8.10000E-002	0.00000	0.84000	0.84000	

WindowMaterial:Gas

	Material Name	GasType	Thickness {m}
1	1002	Air	1.300E-002

Shadowing/Sun Position Calculations Annual Simulations

	Calculation Method	Value {days}	Allowable Number Figures in Shadow Overlap {}	Polygon Clipping Algorithm	Sky Diffuse Modeling Algorithm	External Shading Calculation Method	Output External Shading Calculation Results	Disable Self-Shading Within Shading Zone Groups	Disable Self-Shading From Shading Zone Groups to Other Zones
1	AverageOverDaysInFrequency	20	15000	SutherlandHodgman	SimpleSkyDiffuseModeling	InternalCalculation	No	No	No

Surface View Factor Check Values

	Zone Name	Original Check Value	Calculated Fixed Check Value	Final Check Value	Number of Iterations	Fixed RowSum Convergence	Used RowSum Convergence
1	HALAWALARESTAURANT:BOH	1.776357E-015	6.852352E-004	6.852352E-004	12	6.852352E-004	6.852352E-004
2	HALAWALARESTAURANT:SITTINGAREA	0.387048	9.356622E-004	9.356622E-004	11	9.000000	9.356622E-004
3	HALAWALARESTAURANT:KITCHENAREA	0.000000	9.696614E-004	9.696614E-004	10	9.696614E-004	9.696614E-004

Surface Convection Parameters

	Surface Name	Outside Model Assignment	Outside Area [m2]	Outside Perimeter [m]	Outside Height [m]	Inside Model Assignment	Inside Height [m]	Inside Perimeter Envelope [m]	Inside Hydraulic Diameter [m]	Window Wall Ratio	Window Location	R {Ye
1	HALAWALARESTAURANT:BOH_PARTITION_2_0_0	0	0.00	0.00	0.00	0	3.50	31.07	8.58	0.00	0	
2	HALAWALARESTAURANT:BOH_PARTITION_3_0_0	0	0.00	0.00	0.00	0	3.50	31.07	8.58	0.00	0	
3	HALAWALARESTAURANT:BOH_WALL_4_0_0	0	123.80	78.58	3.50	0	3.50	31.07	8.58	0.00	0	
4	HALAWALARESTAURANT:BOH_WALL_5_0_0	0	23.13	44.87	3.50	0	3.50	31.07	8.58	0.00	0	
5	HALAWALARESTAURANT:BOH_WALL_6_0_0	0	123.80	77.78	3.50	0	3.50	31.07	8.58	0.00	0	
6	HALAWALARESTAURANT:BOH_GROUNDFLOOR_0_0_0	0	0.00	0.00	0.00	0	3.50	31.07	8.58	0.00	0	
7	HALAWALARESTAURANT:BOH_ROOF_1_0_0	0	233.76	112.72	0.00	0	3.50	31.07	8.58	0.00	0	
8	HALAWALARESTAURANT:SITTINGAREA_PARTITION_6_0_10000	0	0.00	0.00	0.00	0	3.50	41.37	6.34	0.10	0	
9	HALAWALARESTAURANT:SITTINGAREA_WALL_2_0_0	0	23.13	44.65	3.50	0	3.50	41.37	6.34	0.10	4	
10	HALAWALARESTAURANT:SITTINGAREA_WALL_2_0_0_0_0_0_WIN	0	22.32	44.65	3.50	0	3.50	41.37	6.34	0.10	1	
11	HALAWALARESTAURANT:SITTINGAREA_WALL_3_0_0	0	123.80	78.58	3.50	0	3.50	41.37	6.34	0.10	4	
12	HALAWALARESTAURANT:SITTINGAREA_WALL_7_0_0	0	123.80	77.78	3.50	0	3.50	41.37	6.34	0.10	3	
13	HALAWALARESTAURANT:SITTINGAREA_GROUNDFLOOR_0_0_0	0	0.00	0.00	0.00	0	3.50	41.37	6.34	0.10	0	
14	HALAWALARESTAURANT:SITTINGAREA_GROUNDFLOOR_0_0_1	0	0.00	0.00	0.00	0	3.50	41.37	6.34	0.10	0	
15	HALAWALARESTAURANT:SITTINGAREA_ROOF_1_0_0	0	233.76	112.72	0.00	0	3.50	41.37	6.34	0.10	0	
16	HALAWALARESTAURANT:SITTINGAREA_ROOF_1_0_1	0	233.76	112.72	0.00	0	3.50	41.37	6.34	0.10	0	
17	HALAWALARESTAURANT:KITCHENAREA_PARTITION_4_0_10001	0	0.00	0.00	0.00	0	3.50	11.52	7.06	0.00	0	
18	HALAWALARESTAURANT:KITCHENAREA_WALL_3_0_0	0	123.80	78.58	3.50	0	3.50	11.52	7.06	0.00	0	
19	HALAWALARESTAURANT:KITCHENAREA_GROUNDFLOOR_0_0_0	0	0.00	0.00	0.00	0	3.50	11.52	7.06	0.00	0	
20	HALAWALARESTAURANT:KITCHENAREA_ROOF_1_0_0	0	233.76	112.72	0.00	0	3.50	11.52	7.06	0.00	0	

Building Convection Parameters:North Facade

	Perimeter	Height	Xmin	Xmax	Ymin	Ymax	Zmin	Zmax
1	78.58	3.50	-17.75	17.62	0.00	5.47	0.00	3.50

Building Convection Parameters:Northeast Facade

	Perimeter	Height	Xmin	Xmax	Ymin	Ymax	Zmin	Zmax
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Building Convection Parameters:East Facade

	Perimeter	Height	Xmin	Xmax	Ymin	Ymax	Zmin	Zmax
1	44.65	3.50	0.00	17.62	-1.14	5.47	0.00	3.50

Building Convection Parameters:Southeast Facade

	Perimeter	Height	Xmin	Xmax	Ymin	Ymax	Zmin	Zmax
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Building Convection Parameters:South Facade

	Perimeter	Height	Xmin	Xmax	Ymin	Ymax	Zmin	Zmax
1	77.78	3.50	-17.75	17.62	-1.14	0.00	0.00	3.50

Building Convection Parameters:Southwest Facade

	Perimeter	Height	Xmin	Xmax	Ymin	Ymax	Zmin	Zmax
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Building Convection Parameters:West Facade

	Perimeter	Height	Xmin	Xmax	Ymin	Ymax	Zmin	Zmax
1	44.87	3.50	-17.75	0.00	-1.14	5.47	0.00	3.50

Building Convection Parameters:Roof

	Area [m2]	Perimeter [m]	Height [m]	XdYdZd:X	XdYdZd:Y	XdYdZd:Z	XdYdZu:X	XdYdZu:Y	XdYdZu:Z	XdYuZd:X	XdYuZd:Y	XdYuZd:Z	XdYuZu:X	XdYuZu:Y	XdYuZu:Z	XuYdZd:
1	233.76	112.72	0.00	-17.746	-1.137	3.500	-17.746	-1.137	3.500	-17.746	5.472	3.500	-17.746	5.472	3.500	17.62

ZoneInfiltration Airflow Stats Nominal

	Name	Schedule Name	Zone Name	Zone Floor Area {m2}	# Zone Occupants	Design Volume Flow Rate {m3/s}	Volume Flow Rate/Floor Area {m3/s/m2}	Volume Flow Rate/Exterior Surface Area {m3/s/m2}	ACH - Air Changes per Hour	Equation A - Constant Term Coefficient {}	Equatic Temper Coeff {
1	HALAWALARESTAURANT:BOH INFILTRATION	ON 24/7	HALAWALARESTAURANT:BOH	80.83	8.9	3.159E-002	3.909E-004	1.667E-004	0.402	1.000	
2	HALAWALARESTAURANT:SITTINGAREA INFILTRATION	ON 24/7	HALAWALARESTAURANT:SITTINGAREA	94.27	18.9	3.984E-002	4.226E-004	1.667E-004	0.435	1.000	
3	HALAWALARESTAURANT:KITCHENAREA INFILTRATION	ON 24/7	HALAWALARESTAURANT:KITCHENAREA	58.67	6.5	1.100E-002	1.875E-004	1.111E-004	0.193	1.000	

ZoneVentilation Airflow Stats Nominal

	Name	Schedule Name	Zone Name	Zone Floor Area {m2}	# Zone Occupants	Design Volume Flow Rate {m3/s}	Volume Flow Rate/Floor Area {m3/s/m2}	Volume Flow Rate/person Area {m3/s/person}	ACH - Air Changes per Hour	{E
1	HALAWALARESTAURANT:BOH NAT VENT	RESTPUB_PLANT_OCC	HALAWALARESTAURANT:BOH	80.83	8.9	0.393	4.861E-003	4.419E-002	5.000	
2	HALAWALARESTAURANT:SITTINGAREA NAT VENT	RESTPUB_EATDRINK_OCC	HALAWALARESTAURANT:SITTINGAREA	94.27	18.9	0.458	4.861E-003	2.431E-002	5.000	
3	HALAWALARESTAURANT:KITCHENAREA NAT VENT	RESTPUB_FOODPREP_OCC	HALAWALARESTAURANT:KITCHENAREA	58.67	6.5	0.285	4.861E-003	4.419E-002	5.000	

AirFlow Model

	Simple
1	Simple

RoomAir Model

	Zone Name	Mixing/Mundt/UCSDDV/UCSDCV/UCSDUFI/UCSDUFE/User Defined
1	HALAWALARESTAURANT:BOH	Mixing/Well-Stirred
2	HALAWALARESTAURANT:SITTINGAREA	Mixing/Well-Stirred
3	HALAWALARESTAURANT:KITCHENAREA	Mixing/Well-Stirred

AirflowNetwork Model:Control

	No Multizone or Distribution/Multizone with Distribution/Multizone without Distribution/Multizone with Distribution only during Fan Operation

1	NoMultizoneOrDistribution

Zone Volume Capacitance Multiplier

	Sensible Heat Capacity Multiplier	Moisture Capacity Multiplier	Carbon Dioxide Capacity Multiplier	Generic Contaminant Capacity Multiplier
1	1.000	1.000	1.000	1.000

Load Timesteps in Zone Design Calculation Averaging Window

	Value
1	6

Heating Sizing Factor Information

	Sizing Factor ID	Value
1	Global	1.2500
2	Zone HALAWALARESTAURANT:BOH	1.2500
3	Zone HALAWALARESTAURANT:SITTINGAREA	1.2500
4	Zone HALAWALARESTAURANT:KITCHENAREA	1.2500

Cooling Sizing Factor Information

	Sizing Factor ID	Value
1	Global	1.1500
2	Zone HALAWALARESTAURANT:BOH	1.1500
3	Zone HALAWALARESTAURANT:SITTINGAREA	1.1500
4	Zone HALAWALARESTAURANT:KITCHENAREA	1.1500

Zone Sizing Information

	Zone Name	Load Type	Calc Des Load {W}	User Des Load {W}	Calc Des Air Flow Rate {m3/s}	User Des Air Flow Rate {m3/s}	Design Day Name	Date/Time of Peak	Temperature at Peak {C}	Humidity Ratio at Peak {kgWater/kgDryAir}	Floor Area {m2}	# Occupants	C A
1	HALAWALARESTAURANT:BOH	Cooling	0.00000	0.00000	0.00000	8.89078E-002	SUMMER DESIGN DAY IN HALA WALA (O1-O1:31-12) AUG		31.40000	9.87683E-003	80.82530	8.89078	8
2	HALAWALARESTAURANT:BOH	Heating	0.00000	0.00000	0.00000	8.89078E-002	WINTER DESIGN DAY IN HALA WALA (O1-O1:31-12)		-2.80000	2.99503E-003	80.82530	8.89078	8
3	HALAWALARESTAURANT:SITTINGAREA	Cooling	3623.08347	4166.54599	0.22880	0.26312	SUMMER DESIGN DAY IN HALA WALA (O1-O1:31-12) JUL	7/15 12:00:00	29.40100	9.38376E-003	94.26830	18.85366	
4	HALAWALARESTAURANT:SITTINGAREA	Heating	3926.87448	4908.59310	0.26463	0.33078	WINTER DESIGN DAY IN HALA WALA (O1-O1:31-12)	1/15 24:00:00	-2.80000	2.99503E-003	94.26830	18.85366	
5	HALAWALARESTAURANT:KITCHENAREA	Cooling	0.00000	0.00000	0.00000	0.16133	SUMMER DESIGN DAY IN HALA WALA (O1-O1:31-12) AUG		31.40000	9.87683E-003	58.66710	6.45338	
6	HALAWALARESTAURANT:KITCHENAREA	Heating	913.84114	1142.30142	4.10651E-002	0.16133	WINTER DESIGN DAY IN HALA WALA (O1-O1:31-12)	1/15 24:00:00	-2.80000	2.99503E-003	58.66710	6.45338	

Component Sizing Information

	Component Type	Component Name	Input Field Description	Value
1	ZoneHVAC:IdealLoadsAirSystem	HALAWALARESTAURANT:BOH IDEAL LOADS AIR	Design Size Maximum Heating Air Flow Rate [m3/s]	0.08891
2	ZoneHVAC:IdealLoadsAirSystem	HALAWALARESTAURANT:BOH IDEAL LOADS AIR	User-Specified Maximum Cooling Air Flow Rate [m3/s]	0.00000

3	ZoneHVAC:IdealLoadsAirSystem	HALAWALARESTAURANT:SITTINGAREA IDEAL LOADS AIR	Design Size Maximum Heating Air Flow Rate [m3/s]	0.33078
4	ZoneHVAC:IdealLoadsAirSystem	HALAWALARESTAURANT:SITTINGAREA IDEAL LOADS AIR	Design Size Maximum Cooling Air Flow Rate [m3/s]	0.26312
5	ZoneHVAC:IdealLoadsAirSystem	HALAWALARESTAURANT:SITTINGAREA IDEAL LOADS AIR	Design Size Maximum Total Cooling Capacity [W]	6384.89309
6	ZoneHVAC:IdealLoadsAirSystem	HALAWALARESTAURANT:KITCHENAREA IDEAL LOADS AIR	Design Size Maximum Heating Air Flow Rate [m3/s]	0.16133
7	ZoneHVAC:IdealLoadsAirSystem	HALAWALARESTAURANT:KITCHENAREA IDEAL LOADS AIR	User-Specified Maximum Cooling Air Flow Rate [m3/s]	0.00000

Zone Surfaces

	Zone Name	# Surfaces
1	HALAWALARESTAURANT:BOH	7
2	HALAWALARESTAURANT:SITTINGAREA	9
3	HALAWALARESTAURANT:KITCHENAREA	4

HeatTransfer Surface

	Surface Name	Surface Class	Base Surface	Heat Transfer Algorithm	Construction	Nominal U (w/o film coefs) {W/m2-K}	N {'
1	HALAWALARESTAURANT:BOH_PARTITION_2_0_0	Wall		CTF - ConductionTransferFunction	LIGHTWEIGHT 2 X 25MM GYPSUM PLASTERBOARD WITH 1OOMM CAVITY_REV	2.857	
2	HALAWALARESTAURANT:BOH_PARTITION_3_0_0	Wall		CTF - ConductionTransferFunction	LIGHTWEIGHT 2 X 25MM GYPSUM PLASTERBOARD WITH 1OOMM CAVITY_REV	2.857	
3	HALAWALARESTAURANT:BOH_WALL_4_0_0	Wall		CTF - ConductionTransferFunction	BRICK/BLOCK WALL (INSULATED TO 1995 REGS)	0.374	
4	HALAWALARESTAURANT:BOH_WALL_5_0_0	Wall		CTF - ConductionTransferFunction	BRICK/BLOCK WALL (INSULATED TO 1995 REGS)	0.374	
5	HALAWALARESTAURANT:BOH_WALL_6_0_0	Wall		CTF - ConductionTransferFunction	BRICK/BLOCK WALL (INSULATED TO 1995 REGS)	0.374	
6	HALAWALARESTAURANT:BOH_GROUNDFLOOR_0_0_0	Floor		CTF - ConductionTransferFunction	GROUND FLOOR SLAB - ENERGY CODE STANDARD - MEDIUM WEIGHT (DATA MODIFIED WHEN LOADED TO FILE)	0.985	
7	HALAWALARESTAURANT:BOH_ROOF_1_0_0	Roof		CTF - ConductionTransferFunction	FLAT ROOF U-VALUE = O.25 W/M2K	0.261	
8	HALAWALARESTAURANT:SITTINGAREA_PARTITION_6_0_10000	Wall		CTF - ConductionTransferFunction	LIGHTWEIGHT 2 X 25MM GYPSUM PLASTERBOARD WITH 1OOMM CAVITY	2.857	
9	HALAWALARESTAURANT:SITTINGAREA_WALL_2_0_0	Wall		CTF - ConductionTransferFunction	BRICK/BLOCK WALL (INSULATED TO 1995 REGS)	0.374	
10	HALAWALARESTAURANT:SITTINGAREA_WALL_2_0_0_0_0_0_WIN	Window	HALAWALARESTAURANT:SITTINGAREA_WALL_2_0_0	Window5 Detailed Fenestration	1001	N/A	
11	HALAWALARESTAURANT:SITTINGAREA_WALL_3_0_0	Wall		CTF - ConductionTransferFunction	BRICK/BLOCK WALL (INSULATED TO 1995 REGS)	0.374	
12	HALAWALARESTAURANT:SITTINGAREA_WALL_7_0_0	Wall		CTF - ConductionTransferFunction	BRICK/BLOCK WALL (INSULATED TO 1995 REGS)	0.374	
13	HALAWALARESTAURANT:SITTINGAREA_GROUNDFLOOR_0_0_0	Floor		CTF - ConductionTransferFunction	GROUND FLOOR SLAB - ENERGY CODE STANDARD - MEDIUM WEIGHT (DATA MODIFIED WHEN LOADED TO FILE)	0.985	
14	HALAWALARESTAURANT:SITTINGAREA_GROUNDFLOOR_0_0_1	Floor		CTF - ConductionTransferFunction	GROUND FLOOR SLAB - ENERGY CODE STANDARD - MEDIUM WEIGHT (DATA MODIFIED	0.985	

					WHEN LOADED TO FILE)		
15	HALAWALARESTAURANT:SITTINGAREA_ROOF_1_0_0	Roof		CTF - ConductionTransferFunction	FLAT ROOF U-VALUE = O.25 W/M2K	0.261	
16	HALAWALARESTAURANT:SITTINGAREA_ROOF_1_0_1	Roof		CTF - ConductionTransferFunction	FLAT ROOF U-VALUE = O.25 W/M2K	0.261	
17	HALAWALARESTAURANT:KITCHENAREA_PARTITION_4_0_10001	Wall		CTF - ConductionTransferFunction	LIGHTWEIGHT 2 X 25MM GYPSUM PLASTERBOARD WITH 1OOMM CAVITY	2.857	
18	HALAWALARESTAURANT:KITCHENAREA_WALL_3_0_0	Wall		CTF - ConductionTransferFunction	BRICK/BLOCK WALL (INSULATED TO 1995 REGS)	0.374	
19	HALAWALARESTAURANT:KITCHENAREA_GROUNDFLOOR_0_0_0	Floor		CTF - ConductionTransferFunction	GROUND FLOOR SLAB - ENERGY CODE STANDARD - MEDIUM WEIGHT (DATA MODIFIED WHEN LOADED TO FILE)	0.985	
20	HALAWALARESTAURANT:KITCHENAREA_ROOF_1_0_0	Roof		CTF - ConductionTransferFunction	FLAT ROOF U-VALUE = O.25 W/M2K	0.261	

Frame/Divider Surface

	Surface Name	Surface Class	Base Surface	Heat Transfer Algorithm	Construction	Nominal U (w/o film coefs) {W/m2-K}	Nominal U (with film coefs) {W/m2-K}	Solar Diffusing	Area (Net) {m2}	Area (Gross) {m2}	Area (Sunlit Calc) {m2}	Azi
1	1	Frame	HALAWALARESTAURANT:SITTINGAREA_WALL_2_0_0_0_0_0_WIN	Window5 Detailed Fenestration		N/A	N/A		0.65	0.65	*	
2	1	Divider:DividedLite	HALAWALARESTAURANT:SITTINGAREA_WALL_2_0_0_0_0_0_WIN			N/A	N/A		0.16	0.16	*	

Environment

	Environment Name	Environment Type	Start Date	End Date	Start DayOfWeek	Duration {#days}	Source:Start DayOfWeek	Use Daylight Saving	Use Holidays	Apply Weekend Holiday Rule	Use Rain Values	Use Snow Values
1	HALA WALA (O1-O1:31-12)	WeatherFileRunPeriod	01/01	12/31	Tuesday	365	UseWeatherFile	No	No	Yes	Yes	Yes

Environment:Daylight Saving

	Daylight Saving Indicator	Source	Start Date	End Date
1	Yes	InputFile	03/31	10/27

Environment:WarmupDays

	NumberofWarmupDays
1	6

Warmup Convergence Information

	Zone Name	Environment Type/Name	Average Warmup Temperature Difference {deltaC}	Std Dev Warmup Temperature Difference {deltaC}	Max Temperature Pass/Fail Convergence	Min Temperature Pass/Fail Convergence	Average Warmup Load Difference {W}	Std Dev Warmup Load Difference {W}	Heating Load Pass/Fail Convergence	Cooling Load Pass/Fail Convergence
1	HALAWALARESTAURANT:BOH	RunPeriod: HALA WALA (O1-O1:31-12)	0.1171920356	0.2998276341	Pass	Pass	0.0000000000	0.0000000000	Pass	Pass
2	HALAWALARESTAURANT:SITTINGAREA	RunPeriod: HALA WALA (O1-O1:31-12)	9.2819605533E-002	0.4167653302	Pass	Pass	3.6263916739E-002	0.1272722264	Pass	Pass
3	HALAWALARESTAURANT:KITCHENAREA	RunPeriod: HALA WALA (O1-O1:31-12)	0.1644258724	0.3069828715	Pass	Pass	0.0000000000	0.0000000000	Pass	Pass

Report: **Climatic Data Summary**

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For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

SizingPeriod:DesignDay

	Maximum Dry Bulb	Daily Temperature Range	Humidity	Humidity	Wind Speed	Wind

	[C]	[deltaC]	Value	Type	[m/s]	Direction
SUMMER DESIGN DAY IN HALA WALA (O1-O1:31-12) JUL	31.00	12.30	19.40	Wetbulb [C]	0.00	0.00
SUMMER DESIGN DAY IN HALA WALA (O1-O1:31-12) AUG	31.40	11.90	19.90	Wetbulb [C]	0.00	0.00
SUMMER DESIGN DAY IN HALA WALA (O1-O1:31-12) SEP	26.20	10.10	17.70	Wetbulb [C]	0.00	0.00
WINTER DESIGN DAY IN HALA WALA (O1-O1:31-12)	-2.80	0.00	-2.80	Wetbulb [C]	13.20	0.00

Weather Statistics File

	Value
None	

Report: **Envelope Summary**

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For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

Opaque Exterior

	Construction	Reflectance	U-Factor with Film [W/m2-K]	U-Factor no Film [W/m2-K]	Gross Area [m2]	Net Area [m2]	Azimuth [deg]	Tilt [deg]	Cardinal Direction
HALAWALARESTAURANT:BOH_WALL_4_0_0	BRICK/BLOCK WALL (INSULATED TO 1995 REGS)	0.30	0.354	0.374	42.80	42.80	0.00	90.00	N
HALAWALARESTAURANT:BOH_WALL_5_0_0	BRICK/BLOCK WALL (INSULATED TO 1995 REGS)	0.30	0.354	0.374	23.13	23.13	270.00	90.00	W
HALAWALARESTAURANT:BOH_WALL_6_0_0	BRICK/BLOCK WALL (INSULATED TO 1995 REGS)	0.30	0.354	0.374	42.80	42.80	180.00	90.00	S
HALAWALARESTAURANT:BOH_GROUNDFLOOR_0_0_0	GROUND FLOOR SLAB - ENERGY CODE STANDARD - MEDIUM WEIGHT (DATA MODIFIED WHEN LOADED TO FILE)	0.40	0.850	0.985	80.83	80.83	0.00	180.00	
HALAWALARESTAURANT:BOH_ROOF_1_0_0	FLAT ROOF U-VALUE = O.25 W/M2K	0.15	0.252	0.261	80.83	80.83	180.00	0.00	
HALAWALARESTAURANT:SITTINGAREA_WALL_2_0_0	BRICK/BLOCK WALL (INSULATED TO 1995 REGS)	0.30	0.354	0.374	23.13	7.63	90.00	90.00	E
HALAWALARESTAURANT:SITTINGAREA_WALL_3_0_0	BRICK/BLOCK WALL (INSULATED TO 1995 REGS)	0.30	0.354	0.374	40.66	40.66	0.00	90.00	N
HALAWALARESTAURANT:SITTINGAREA_WALL_7_0_0	BRICK/BLOCK WALL (INSULATED TO 1995 REGS)	0.30	0.354	0.374	80.99	80.99	180.00	90.00	S
HALAWALARESTAURANT:SITTINGAREA_GROUNDFLOOR_0_0_0	GROUND FLOOR SLAB - ENERGY CODE STANDARD - MEDIUM WEIGHT (DATA MODIFIED WHEN LOADED TO FILE)	0.40	0.850	0.985	17.50	17.50	0.00	180.00	
HALAWALARESTAURANT:SITTINGAREA_GROUNDFLOOR_0_0_1	GROUND FLOOR SLAB - ENERGY CODE STANDARD - MEDIUM WEIGHT (DATA MODIFIED WHEN LOADED TO FILE)	0.40	0.850	0.985	76.77	76.77	0.00	180.00	
HALAWALARESTAURANT:SITTINGAREA_ROOF_1_0_0	FLAT ROOF U-VALUE = O.25 W/M2K	0.15	0.252	0.261	59.14	59.14	180.00	0.00	
HALAWALARESTAURANT:SITTINGAREA_ROOF_1_0_1	FLAT ROOF U-VALUE = O.25 W/M2K	0.15	0.252	0.261	35.13	35.13	180.00	0.00	
HALAWALARESTAURANT:KITCHENAREA_WALL_3_0_0	BRICK/BLOCK WALL (INSULATED TO 1995 REGS)	0.30	0.354	0.374	40.34	40.34	0.00	90.00	N
HALAWALARESTAURANT:KITCHENAREA_GROUNDFLOOR_0_0_0	GROUND FLOOR SLAB - ENERGY CODE STANDARD - MEDIUM WEIGHT (DATA MODIFIED WHEN LOADED TO FILE)	0.40	0.850	0.985	58.67	58.67	0.00	180.00	
HALAWALARESTAURANT:KITCHENAREA_ROOF_1_0_0	FLAT ROOF U-VALUE = O.25 W/M2K	0.15	0.252	0.261	58.67	58.67	180.00	0.00	

Exterior Fenestration

	Construction	Glass Area [m2]	Frame Area [m2]	Divider Area [m2]	Area of One Opening [m2]	Area of Multiplied Openings [m2]	Glass U-Factor [W/m2-K]	Glass SHGC	Glass Visible Transmittance	Frame Conductance [W/m2-K]	Di Conduct [W/m
HALAWALARESTAURANT:SITTINGAREA_WALL_2_0_0_0_0_0_WIN	1001	14.69	0.65	0.16	15.50	15.50	1.960	0.691	0.744	9.500	
Total or Average						15.50	1.960	0.691	0.744		
North Total or Average						0.00	-	-	-		
Non-North Total or Average						15.50	1.960	0.691	0.744		

Interior Fenestration

	Construction	Area of One Opening [m2]	Area of Openings [m2]	Glass U-Factor [W/m2-K]	Glass SHGC	Glass Visible Transmittance	Parent Surface
Total or Average			0.00	-	-	-	

Exterior Door

	Construction	U-Factor with Film [W/m2-K]	U-Factor no Film [W/m2-K]	Gross Area [m2]	Parent Surface
None					

Report: **Shading Summary**

Table of Contents

For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

Sunlit Fraction

	March 21 9am	March 21 noon	March 21 3pm	June 21 9am	June 21 noon	June 21 3pm	December 21 9am	December 21 noon	December 21 3pm
HALAWALARESTAURANT:SITTINGAREA_WALL_2_0_0_0_0_0_WIN	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00

Window Control

	Name	Type	Shaded Construction	Control	Glare Control
None					

Report: **Lighting Summary** Table of Contents

For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

Interior Lighting

	Zone	Lighting Power Density [W/m2]	Zone Area [m2]	Total Power [W]	End Use Subcategory	Schedule Name	Scheduled Hours/Week [hr]	Hours/Week > 1% [hr]	Fu Hours
HALAWALARESTAURANT:BOH	HALAWALARESTAURANT:BOH	10.0000	80.83	808.25	General	RESTPUB_PLANT_LIGHT	0.40	0.00	
HALAWALARESTAURANT:SITTINGAREA	HALAWALARESTAURANT:SITTINGAREA	3.7500	94.27	353.51	General	RESTPUB_FOODPREP_EQUIP	116.65	168.00	
HALAWALARESTAURANT:KITCHENAREA	HALAWALARESTAURANT:KITCHENAREA	25.0000	58.67	1466.68	General	RESTPUB_FOODPREP_LIGHT	126.00	126.00	
Interior Lighting Total		11.2441	233.76	2628.44					

Daylighting

	Zone	Control Name	Daylighting Method	Control Type	Fraction Controlled	Lighting Installed in Zone [W]	Lighting Controlled [W]
None							

Exterior Lighting

	Total Watts	Astronomical Clock/Schedule	Schedule Name	Scheduled Hours/Week [hr]	Hours/Week > 1% [hr]	Full Load Hours/Week [hr]	Consumption [kWh]
Exterior Lighting Total	0.00						0.00

Report: **Equipment Summary** Table of Contents

For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

Central Plant

	Type	Nominal Capacity [W]	Nominal Efficiency [W/W]	IPLV in SI Units [W/W]	IPLV in IP Units [Btu/W-h]
None					

Cooling Coils

	Type	Design Coil Load [W]	Nominal Total Capacity [W]	Nominal Sensible Capacity [W]	Nominal Latent Capacity [W]	Nominal Sensible Heat Ratio	Nominal Efficiency [W/W]	Nominal Coil UA Value [W/C]	Nominal Coil Surface Area [m2]
None									

DX Cooling Coils

	DX Cooling Coil Type	Standard Rated Net Cooling Capacity [W]	Standard Rated Net COP [W/W]	EER [Btu/W-h]	SEER [Btu/W-h]	IEER [Btu/W-h]
None						

DX Cooling Coil ASHRAE 127 Standard Ratings Report

	DX Cooling Coil Type	Rated Net Cooling Capacity Test A [W]	Rated Electric Power Test A [W]	Rated Net Cooling Capacity Test B [W]	Rated Electric Power Test B [W]	Rated Net Cooling Capacity Test C [W]	Rated Electric Power Test C [W]	Rated Net Cooling Capacity Test D [W]	Rated Electric Power Test D [W]
None									

DX Heating Coils

	DX Heating Coil Type	High Temperature Heating (net) Rating Capacity [W]	Low Temperature Heating (net) Rating Capacity [W]	HSPF [Btu/W-h]	Region Number
None					

Heating Coils

	Type	Design Coil Load [W]	Nominal Total Capacity [W]	Nominal Efficiency [W/W]
None				

Fans

	Type	Total Efficiency [W/W]	Delta Pressure [pa]	Max Air Flow Rate [m3/s]	Rated Electric Power [W]	Rated Power Per Max Air Flow Rate [W-s/m3]	Motor Heat In Air Fraction	End Use	Design Day Name for Fan Sizing Peak	Date/Time for Fan Sizing Peak
None										

Pumps

	Type	Control	Head [pa]	Water Flow [m3/s]	Electric Power [W]	Power Per Water Flow Rate [W-s/m3]	Motor Efficiency [W/W]
None							

Service Water Heating

	Type	Storage Volume [m3]	Input [W]	Thermal Efficiency [W/W]	Recovery Efficiency [W/W]	Energy Factor
None						

Report: **HVAC Sizing Summary**

Table of Contents

For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

Zone Sensible Cooling

	Calculated Design Load [W]	User Design Load [W]	User Design Load per Area [W/m2]	Calculated Design Air Flow [m3/s]	User Design Air Flow [m3/s]	Design Day Name	Date/Time Of Peak {TIMESTAMP}	Thermostat Setpoint Temperature at Peak Load [C]	Indoor Temperature at Peak Load [C]	Indoor Humidity Ratio at Peak Load [kgWater/kgAir]	Outdoor Temperature at Peak Load [C]
HALAWALARESTAURANT:BOH	0.00	0.00	0.00	0.000	0.089	SUMMER DESIGN DAY IN HALA WALA (O1-O1:31-12) AUG		46.94	100.00	0.00001	31.40
HALAWALARESTAURANT:SITTINGAREA	3623.08	4166.55	44.20	0.229	0.263	SUMMER DESIGN DAY IN HALA WALA (O1-O1:31-12) JUL	7/15 12:00:00	25.00	25.00	0.00874	29.40
HALAWALARESTAURANT:KITCHENAREA	0.00	0.00	0.00	0.000	0.161	SUMMER DESIGN DAY IN HALA WALA (O1-O1:31-12) AUG		39.11	100.00	0.00001	31.40

The Design Load is the zone sensible load only. It does not include any system effects or ventilation loads.

Zone Sensible Heating

	Calculated Design Load [W]	User Design Load [W]	User Design Load per Area [W/m2]	Calculated Design Air Flow [m3/s]	User Design Air Flow [m3/s]	Design Day Name	Date/Time Of Peak {TIMESTAMP}	Thermostat Setpoint Temperature at Peak Load [C]	Indoor Temperature at Peak Load [C]	Indoor Humidity Ratio at Peak Load [kgWater/kgAir]	Outdoor Temperature at Peak Load [C]
HALAWALARESTAURANT:BOH	0.00	0.00	0.00	0.000	0.089	WINTER DESIGN DAY IN HALA WALA (O1-O1:31-12)		0.00	0.00	0.01560	-2.80
HALAWALARESTAURANT:SITTINGAREA	3926.87	4908.59	52.07	0.265	0.331	WINTER DESIGN DAY IN HALA WALA (O1-O1:31-12)	1/15 24:00:00	23.00	22.99	0.01383	-2.80
HALAWALARESTAURANT:KITCHENAREA	913.84	1142.30	19.47	0.041	0.161	WINTER DESIGN DAY IN HALA WALA (O1-O1:31-12)	1/15 24:00:00	17.00	16.99	0.01216	-2.80

The Design Load is the zone sensible load only. It does not include any system effects or ventilation loads.

System Design Air Flow Rates

	Calculated cooling [m3/s]	User cooling [m3/s]	Calculated heating [m3/s]	User heating [m3/s]	Adjusted cooling [m3/s]	Adjusted heating [m3/s]	Adjusted main [m3/s]	Calculated Heating Air Flow Ratio []	User Heating Air Flow Ratio []
None									

Plant Loop Coincident Design Fluid Flow Rate Adjustments

	Previous Design Volume Flow Rate [m3/s]	Algorithm Volume Flow Rate [m3/s]	Coincident Design Volume Flow Rate [m3/s]	Coincident Size Adjusted	Peak Sizing Period Name	Peak Day into Period {TIMESTAMP}[day]	Peak Hour Of Day {TIMESTAMP}[hr]	Peak Step Start Minute {TIMESTAMP}[min]
None								

Coil Sizing Summary

	Coil Type	HVAC Type	HVAC Name	Coil Final Gross Total Capacity [W]	Coil Final Gross Sensible Capacity [W]	Coil Final Reference Air Volume Flow Rate [m3/s]	Coil Final Reference Plant Fluid Volume Flow Rate [m3/s]	Coil U-value Times Area Value [W/K]	Design Day Name at Sensible Ideal Loads Peak	Date/Time at Sensible Ideal Loads Peak	Design Day Name at Air Flow Ideal Loads Peak	Date/Time at Air Flow Ideal Loads Peak	Coil Total Capacity at Ideal Loads Peak [W]	Coil Sensible Capacity at Ideal Loads Peak [W]	Coil Air Volume Flow Rate at Ideal Loads Peak [m3/s]	Coil Entering Air Drybulb at Ideal Loads Peak [C]	Coil Entering Air Wetbulb at Ideal Loads Peak [C]	Hu [KG
None																		

Report: **Coil Sizing Details** Table of Contents

For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

Coils

	Coil Type	Coil Location	HVAC Type	HVAC Name	Zone Name(s)	System Sizing Method Concurrence	System Sizing Method Capacity	System Sizing Method Air Flow	Autosized Coil Capacity?	Autosized Coil Airflow?	Autosized Coil Water Flow?	OA Pretreated prior to coil inlet?	Coil Final Gross Total Capacity [W]	Coil Final Gross Sensible Capacity [W]	Coil Final Reference Air Volume Flow Rate [m3/s]	Coil Final Reference Plant Fluid Volume Flow Rate [m3/s]	va Tin A Va [W/
None																	

Report: **System Summary** Table of Contents

For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

Economizer

	High Limit Shutoff Control	Minimum Outdoor Air [m3/s]	Maximum Outdoor Air [m3/s]	Return Air Temp Limit	Return Air Enthalpy Limit	Outdoor Air Temperature Limit [C]	Outdoor Air Enthalpy Limit [C]
None							

Demand Controlled Ventilation using Controller:MechanicalVentilation

	Controller:MechanicalVentilation Name	Outdoor Air Per Person [m3/s-person]	Outdoor Air Per Area [m3/s-m2]	Outdoor Air Per Zone [m3/s]	Outdoor Air ACH [ach]	Outdoor Air Method	Outdoor Air Schedule Name	Air Distribution Effectiveness in Cooling Mode	Air Distribution Effectiveness in Heating Mode	Air Distribution Effectiveness Schedule Name
None										

Time Not Comfortable Based on Simple ASHRAE 55-2004

	Winter Clothes [hr]	Summer Clothes [hr]	Summer or Winter Clothes [hr]
HALAWALARESTAURANT:BOH	2088.00	2054.50	2054.50
HALAWALARESTAURANT:SITTINGAREA	964.50	4551.33	124.33
HALAWALARESTAURANT:KITCHENAREA	4430.67	2731.83	1963.33
Facility	5073.83	6132.00	3370.50

Aggregated over the RunPeriods for Weather

Time Setpoint Not Met

	During Heating [hr]	During Cooling [hr]	During Occupied Heating [hr]	During Occupied Cooling [hr]
HALAWALARESTAURANT:BOH	0.00	0.00	0.00	0.00
HALAWALARESTAURANT:SITTINGAREA	30.67	0.00	0.00	0.00
HALAWALARESTAURANT:KITCHENAREA	0.00	0.00	0.00	0.00
Facility	30.67	0.00	0.00	0.00

Aggregated over the RunPeriods for Weather

Report: **Outdoor Air Summary** Table of Contents

For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

Average Outdoor Air During Occupied Hours

	Average Number of	Nominal Number of	Zone Volume	Mechanical	Infiltration	AFN Infiltration	Simple

	Occupants	Occupants	[m3]	Ventilation [ach]	[ach]	[ach]	Ventilation [ach]
HALAWALARESTAURANT:BOH	0.09	8.89	282.89	0.000	0.436	0.000	0.054
HALAWALARESTAURANT:SITTINGAREA	10.90	18.85	329.94	0.000	0.453	0.000	0.435
HALAWALARESTAURANT:KITCHENAREA	5.02	6.45	205.33	0.000	0.203	0.000	3.068

Values shown for a single zone without multipliers

Minimum Outdoor Air During Occupied Hours

	Average Number of Occupants	Nominal Number of Occupants	Zone Volume [m3]	Mechanical Ventilation [ach]	Infiltration [ach]	AFN Infiltration [ach]	Simple Ventilation [ach]
HALAWALARESTAURANT:BOH	0.09	8.89	282.89	0.000	0.007	0.000	0.001
HALAWALARESTAURANT:SITTINGAREA	10.90	18.85	329.94	0.000	0.007	0.000	0.000
HALAWALARESTAURANT:KITCHENAREA	5.02	6.45	205.33	0.000	0.003	0.000	0.000

Values shown for a single zone without multipliers

Report: **Object Count Summary**

Table of Contents

For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

Surfaces by Class

	Total	Outdoors
Wall	11	7
Floor	4	4
Roof	4	4
Internal Mass	0	0
Building Detached Shading	0	0
Fixed Detached Shading	0	0
Window	1	1
Door	0	0
Glass Door	0	0
Shading	0	0
Overhang	0	0
Fin	0	0
Tubular Daylighting Device Dome	0	0
Tubular Daylighting Device Diffuser	0	0

HVAC

	Count
HVAC Air Loops	0
Conditioned Zones	3
Unconditioned Zones	0
Supply Plenums	0
Return Plenums	0

Input Fields

	Count
IDF Objects	0
Defaulted Fields	0
Fields with Defaults	0
Autosized Fields	0
Autosizable Fields	0
Autocalculated Fields	0
Autocalculatable Fields	0

Report: **Energy Meters**

Table of Contents

For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

Annual and Peak Values - Electricity

	Electricity Annual Value [kWh]	Electricity Minimum Value [W]	Timestamp of Minimum {TIMESTAMP}	Electricity Maximum Value [W]	Timestamp of Maximum {TIMESTAMP}
Electricity:Facility	55880.00	1144.36	01-JAN-00:10	8704.07	01-JAN-09:10
Electricity:Building	55880.00	1144.36	01-JAN-00:10	8704.07	01-JAN-09:10
Electricity:Zone:HALAWALARESTAURANT:BOH	29020.45	1010.28	01-JAN-00:10	4405.79	01-JAN-09:10
InteriorLights:Electricity	11803.19	16.74	01-JAN-00:10	1828.27	01-JAN-09:10
InteriorLights:Electricity:Zone:HALAWALARESTAURANT:BOH	16.88	0.00	01-JAN-00:10	8.08	01-JAN-09:10
General:InteriorLights:Electricity	11803.19	16.74	01-JAN-00:10	1828.27	01-JAN-09:10
Electricity:Zone:HALAWALARESTAURANT:SITTINGAREA	2150.23	16.74	01-JAN-00:10	353.51	01-JAN-07:10

InteriorLights:Electricity:Zone:HALAWALARESTAURANT:SITTINGAREA	2150.23	16.74	01-JAN-00:10	353.51	01-JAN-07:10
Electricity:Zone:HALAWALARESTAURANT:KITCHENAREA	24709.32	117.34	01-JAN-00:10	3944.78	01-JAN-07:10
InteriorLights:Electricity:Zone:HALAWALARESTAURANT:KITCHENAREA	9636.08	0.00	01-JAN-00:10	1466.68	01-JAN-06:10
InteriorEquipment:Electricity	44076.81	1127.62	01-JAN-00:10	6875.80	01-JAN-07:10
InteriorEquipment:Electricity:Zone:HALAWALARESTAURANT:BOH	29003.57	1010.28	01-JAN-00:10	4397.70	01-JAN-07:10
ELECTRIC EQUIPMENT#HalaWalaRestaurant:BOH#05:InteriorEquipment:Electricity	29003.57	1010.28	01-JAN-00:10	4397.70	01-JAN-07:10
InteriorEquipment:Electricity:Zone:HALAWALARESTAURANT:KITCHENAREA	15073.24	117.34	01-JAN-00:10	2478.10	01-JAN-07:10
ELECTRIC EQUIPMENT#HalaWalaRestaurant:KitchenArea#05:InteriorEquipment:Electricity	15073.24	117.34	01-JAN-00:10	2478.10	01-JAN-07:10
Fans:Electricity	0.00	0.00	01-JAN-00:10	0.00	01-JAN-00:10
Fans:Electricity:Zone:HALAWALARESTAURANT:BOH	0.00	0.00	01-JAN-00:10	0.00	01-JAN-00:10
Ventilation (simple):Fans:Electricity	0.00	0.00	01-JAN-00:10	0.00	01-JAN-00:10
Fans:Electricity:Zone:HALAWALARESTAURANT:SITTINGAREA	0.00	0.00	01-JAN-00:10	0.00	01-JAN-00:10
Fans:Electricity:Zone:HALAWALARESTAURANT:KITCHENAREA	0.00	0.00	01-JAN-00:10	0.00	01-JAN-00:10
ElectricityPurchased:Facility	55880.00	1144.36	01-JAN-00:10	8704.07	01-JAN-09:10
ElectricityPurchased:Plant	55880.00	1144.36	01-JAN-00:10	8704.07	01-JAN-09:10
Cogeneration:ElectricityPurchased	55880.00	1144.36	01-JAN-00:10	8704.07	01-JAN-09:10
ElectricitySurplusSold:Facility	0.00	0.00	01-JAN-00:10	0.00	01-JAN-00:10
ElectricitySurplusSold:Plant	0.00	0.00	01-JAN-00:10	0.00	01-JAN-00:10
Cogeneration:ElectricitySurplusSold	0.00	0.00	01-JAN-00:10	0.00	01-JAN-00:10
ElectricityNet:Facility	55880.00	1144.36	01-JAN-00:10	8704.07	01-JAN-09:10
ElectricityNet:Plant	55880.00	1144.36	01-JAN-00:10	8704.07	01-JAN-09:10
Cogeneration:ElectricityNet	55880.00	1144.36	01-JAN-00:10	8704.07	01-JAN-09:10

Annual and Peak Values - Gas

	Gas Annual Value [kWh]	Gas Minimum Value [W]	Timestamp of Minimum {TIMESTAMP}	Gas Maximum Value [W]	Timestamp of Maximum {TIMESTAMP}
None					

Annual and Peak Values - Cooling

	Cooling Annual Value [kWh]	Cooling Minimum Value [W]	Timestamp of Minimum {TIMESTAMP}	Cooling Maximum Value [W]	Timestamp of Maximum {TIMESTAMP}
DistrictCooling:Facility	350.88	0.00	01-JAN-00:10	3803.06	30-JUN-12:40
DistrictCooling:HVAC	350.88	0.00	01-JAN-00:10	3803.06	30-JUN-12:40
Cooling:DistrictCooling	350.88	0.00	01-JAN-00:10	3803.06	30-JUN-12:40

Annual and Peak Values - Water

	Annual Value [m3]	Minimum Value [m3/s]	Timestamp of Minimum {TIMESTAMP}	Maximum Value [m3/s]	Timestamp of Maximum {TIMESTAMP}
Water:Facility	202.85	0.00	01-JAN-00:10	0.00	01-JAN-12:10
Water:Plant	202.85	0.00	01-JAN-00:10	0.00	01-JAN-12:10
WaterSystems:Water	202.85	0.00	01-JAN-00:10	0.00	01-JAN-12:10
DHW HalaWalaRestaurant:SittingArea:WaterSystems:Water	195.78	0.00	01-JAN-00:10	0.00	01-JAN-12:10
MainsWater:Facility	202.85	0.00	01-JAN-00:10	0.00	01-JAN-12:10
MainsWater:Plant	202.85	0.00	01-JAN-00:10	0.00	01-JAN-12:10
WaterSystems:MainsWater	202.85	0.00	01-JAN-00:10	0.00	01-JAN-12:10
DHW HalaWalaRestaurant:SittingArea:WaterSystems:MainsWater	195.78	0.00	01-JAN-00:10	0.00	01-JAN-12:10
DHW HalaWalaRestaurant:KitchenArea:WaterSystems:Water	7.07	0.00	01-JAN-00:10	0.00	01-JAN-11:50
DHW HalaWalaRestaurant:KitchenArea:WaterSystems:MainsWater	7.07	0.00	01-JAN-00:10	0.00	01-JAN-11:50

Annual and Peak Values - Other by Weight/Mass

	Annual Value [kg]	Minimum Value [kg/s]	Timestamp of Minimum {TIMESTAMP}	Maximum Value [kg/s]	Timestamp of Maximum {TIMESTAMP}
Carbon Equivalent:Facility	0.00	0.000	01-JAN-00:10	0.000	01-JAN-00:10
CarbonEquivalentEmissions:Carbon Equivalent	0.00	0.000	01-JAN-00:10	0.000	01-JAN-00:10

Annual and Peak Values - Other Volumetric

	Annual Value [m3]	Minimum Value [m3/s]	Timestamp of Minimum {TIMESTAMP}	Maximum Value [m3/s]	Timestamp of Maximum {TIMESTAMP}
None					

Annual and Peak Values - Other Liquid/Gas

	Annual Value [L]	Minimum Value [L]	Timestamp of Minimum {TIMESTAMP}	Maximum Value [L]	Timestamp of Maximum {TIMESTAMP}
None					

Annual and Peak Values - Other

	Annual Value [kWh]	Minimum Value [W]	Timestamp of Minimum {TIMESTAMP}	Maximum Value [W]	Timestamp of Maximum {TIMESTAMP}
EnergyTransfer:Facility	6330.16	0.00	01-JAN-00:10	6494.09	13-DEC-05:10
EnergyTransfer:Building	6330.16	0.00	01-JAN-00:10	6494.09	13-DEC-05:10
EnergyTransfer:Zone:HALAWALARESTAURANT:BOH	0.00	0.00	01-JAN-00:10	0.00	01-JAN-00:10
Heating:EnergyTransfer	6023.61	0.00	01-JAN-00:10	6494.09	13-DEC-05:10
Heating:EnergyTransfer:Zone:HALAWALARESTAURANT:BOH	0.00	0.00	01-JAN-00:10	0.00	01-JAN-00:10
Cooling:EnergyTransfer	306.55	0.00	01-JAN-00:10	3193.16	30-JUN-11:10
Cooling:EnergyTransfer:Zone:HALAWALARESTAURANT:BOH	0.00	0.00	01-JAN-00:10	0.00	01-JAN-00:10
EnergyTransfer:Zone:HALAWALARESTAURANT:SITTINGAREA	6330.16	0.00	01-JAN-00:10	6494.09	13-DEC-05:10
Heating:EnergyTransfer:Zone:HALAWALARESTAURANT:SITTINGAREA	6023.61	0.00	01-JAN-00:10	6494.09	13-DEC-05:10
Cooling:EnergyTransfer:Zone:HALAWALARESTAURANT:SITTINGAREA	306.55	0.00	01-JAN-00:10	3193.16	30-JUN-11:10
EnergyTransfer:Zone:HALAWALARESTAURANT:KITCHENAREA	0.00	0.00	01-JAN-00:10	0.00	01-JAN-00:10
Heating:EnergyTransfer:Zone:HALAWALARESTAURANT:KITCHENAREA	0.00	0.00	01-JAN-00:10	0.00	01-JAN-00:10
Cooling:EnergyTransfer:Zone:HALAWALARESTAURANT:KITCHENAREA	0.00	0.00	01-JAN-00:10	0.00	01-JAN-00:10
DistrictHeating:Facility	18990.64	0.00	01-JAN-00:10	6741.00	13-DEC-05:10
DistrictHeating:Plant	12954.09	0.00	01-JAN-00:10	3791.47	01-JAN-13:10
WaterSystems:DistrictHeating	12954.09	0.00	01-JAN-00:10	3791.47	01-JAN-13:10
DHW HalaWalaRestaurant:SittingArea:WaterSystems:DistrictHeating	12502.81	0.00	01-JAN-00:10	3703.16	01-JAN-13:10
DHW HalaWalaRestaurant:KitchenArea:WaterSystems:DistrictHeating	451.27	0.00	01-JAN-00:10	88.31	02-JAN-13:00
DistrictHeating:HVAC	6036.55	0.00	01-JAN-00:10	6741.00	13-DEC-05:10
Heating:DistrictHeating	6036.55	0.00	01-JAN-00:10	6741.00	13-DEC-05:10

Report: **Sensible Heat Gain Summary**

Table of Contents

For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

Annual Building Sensible Heat Gain Components

	HVAC Zone Eq & Other Sensible Air Heating [kWh]	HVAC Zone Eq & Other Sensible Air Cooling [kWh]	HVAC Terminal Unit Sensible Air Heating [kWh]	HVAC Terminal Unit Sensible Air Cooling [kWh]	HVAC Input Heated Surface Heating [kWh]	HVAC Input Cooled Surface Cooling [kWh]	People Sensible Heat Addition [kWh]	Lights Sensible Heat Addition [kWh]	Equipment Sensible Heat Addition [kWh]	Window Heat Addition [kWh]	Interzone Air Transfer Heat Addition [kWh]	Infiltration Heat Addition [kWh]	Opaque Surface Conduction and Other Heat Addition [kWh]
HALAWALARESTAURANT:BOH	0.000	0.000	0.000	0.000	0.000	0.000	1.816	16.876	29003.570	0.000	0.000	0.000	0.017
HALAWALARESTAURANT:SITTINGAREA	6023.554	-306.55	0.000	0.000	0.000	0.000	4439.952	2150.231	0.000	4506.402	0.000	5.483	0.003
HALAWALARESTAURANT:KITCHENAREA	0.000	0.000	0.000	0.000	0.000	0.000	2178.737	9636.079	15073.241	0.000	0.000	0.000	0.008
Total Facility	6023.554	-306.55	0.000	0.000	0.000	0.000	6620.505	11803.186	44076.811	4506.402	0.000	5.483	0.028

Peak Cooling Sensible Heat Gain Components

	Time of Peak {TIMESTAMP}	HVAC Zone Eq & Other Sensible Air Heating [W]	HVAC Zone Eq & Other Sensible Air Cooling [W]	HVAC Terminal Unit Sensible Air Heating [W]	HVAC Terminal Unit Sensible Air Cooling [W]	HVAC Input Heated Surface Heating [W]	HVAC Input Cooled Surface Cooling [W]	People Sensible Heat Addition [W]	Lights Sensible Heat Addition [W]	Equipment Sensible Heat Addition [W]	Window Heat Addition [W]	Interzone Air Transfer Heat Addition [W]	Infiltrati He Additi [W]
HALAWALARESTAURANT:BOH	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
HALAWALARESTAURANT:SITTINGAREA	30-JUN-11:10	0.00	-3193.46	0.00	0.00	0.00	0.00	1185.49	353.51	0.00	3002.70	0.00	121.
HALAWALARESTAURANT:KITCHENAREA	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
Total Facility	30-JUN-11:10	0.00	-3193.46	0.00	0.00	0.00	0.00	1250.38	1820.18	6875.80	3002.70	0.00	121.

Peak Heating Sensible Heat Gain Components

	Time of Peak {TIMESTAMP}	HVAC Zone Eq & Other Sensible Air Heating [W]	HVAC Zone Eq & Other Sensible Air Cooling [W]	HVAC Terminal Unit Sensible Air Heating [W]	HVAC Terminal Unit Sensible Air Cooling [W]	HVAC Input Heated Surface Heating [W]	HVAC Input Cooled Surface Cooling [W]	People Sensible Heat Addition [W]	Lights Sensible Heat Addition [W]	Equipment Sensible Heat Addition [W]	Window Heat Addition [W]	Interzone Air Transfer Heat Addition [W]	Infiltrati He Additi [W]
HALAWALARESTAURANT:BOH	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
HALAWALARESTAURANT:SITTINGAREA	13-DEC-05:01	7804.58	0.00	0.00	0.00	0.00	0.00	0.00	16.74	0.00	0.00	0.00	0.
HALAWALARESTAURANT:KITCHENAREA	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
Total Facility	13-DEC-05:01	7804.58	0.00	0.00	0.00	0.00	0.00	0.00	16.74	1127.62	0.00	0.00	0.

Report: **Standard 62.1 Summary**

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For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

System Ventilation Requirements for Cooling

	Sum of Zone	System	Sum of	Occupant	Uncorrected	System	Average	System	Outdoor	Percent	Environment	Date and Time

	Primary Air Flow - Vpz-sum [m3/s]	Population - Ps	Zone Population - Pz-sum	Diversity - D	Outdoor Air Intake Airflow - Vou [m3/s]	Primary Airflow - Vps [m3/s]	Outdoor Air Fraction - Xs	Ventilation Efficiency - Ev	Air Intake Flow - Vot [m3/s]	Outdoor Air - %OA	Name of Peak System Population - Ps	of Last Peak System Population - Ps
None												

System Ventilation Requirements for Heating

	Sum of Zone Primary Air Flow - Vpz-sum [m3/s]	System Population - Ps	Sum of Zone Population - Pz-sum	Occupant Diversity - D	Uncorrected Outdoor Air Intake Airflow - Vou [m3/s]	System Primary Airflow - Vps [m3/s]	Average Outdoor Air Fraction - Xs	System Ventilation Efficiency - Ev	Outdoor Air Intake Flow Vot [m3/s]	Percent Outdoor Air - %OA	Environment Name of Peak System Population - Ps	Date and Time of Last Peak System Population - Ps
None												

Zone Ventilation Parameters

	AirLoop Name	People Outdoor Air Rate - Rp [m3/s-person]	Zone Population - Pz	Area Outdoor Air Rate - Ra [m3/s-m2]	Zone Floor Area - Az [m2]	Breathing Zone Outdoor Airflow - Vbz [m3/s]	Cooling Zone Air Distribution Effectiveness - Ez-clg	Cooling Zone Outdoor Airflow - Voz-clg [m3/s]	Heating Zone Air Distribution Effectiveness - Ez-htg	Heating Zone Outdoor Airflow - Voz-htg [m3/s]
None										

System Ventilation Parameters

	People Outdoor Air Rate - Rp [m3/s-person]	Sum of Zone Population - Pz-sum	Area Outdoor Air Rate - Ra [m3/s-m2]	Sum of Zone Floor Area - Az-sum [m2]	Breathing Zone Outdoor Airflow - Vbz [m3/s]	Cooling Zone Outdoor Airflow - Voz-clg [m3/s]	Heating Zone Outdoor Airflow - Voz-htg [m3/s]
None							

Zone Ventilation Calculations for Cooling Design

	AirLoop Name	Box Type	Zone Primary Airflow - Vpz [m3/s]	Zone Discharge Airflow - Vdz [m3/s]	Minimum Zone Primary Airflow - Vpz-min [m3/s]	Zone Outdoor Airflow Cooling - Voz-clg [m3/s]	Primary Outdoor Air Fraction - Zpz	Primary Air Fraction - Ep	Secondary Recirculation Fraction- Er	Supply Air Fraction- Fa	Mixed Air Fraction - Fb	Outdoor Air Fraction - Fc	Zone Ventilation Efficiency - Evz
None													

System Ventilation Calculations for Cooling Design

	Sum of Zone Primary Airflow - Vpz-sum [m3/s]	System Primary Airflow - Vps [m3/s]	Sum of Zone Discharge Airflow - Vdz-sum [m3/s]	Sum of Min Zone Primary Airflow - Vpz-min [m3/s]	Zone Outdoor Airflow Cooling - Voz-clg [m3/s]	Zone Ventilation Efficiency - Evz-min
None						

Zone Ventilation Calculations for Heating Design

	AirLoop Name	Box Type	Zone Primary Airflow - Vpz [m3/s]	Zone Discharge Airflow - Vdz [m3/s]	Minimum Zone Primary Airflow - Vpz-min [m3/s]	Zone Outdoor Airflow Heating - Voz-htg [m3/s]	Primary Outdoor Air Fraction - Zpz	Primary Air Fraction - Ep	Secondary Recirculation Fraction- Er	Supply Air Fraction- Fa	Mixed Air Fraction - Fb	Outdoor Air Fraction - Fc	Zone Ventilation Efficiency - Evz
None													

System Ventilation Calculations for Heating Design

	Sum of Zone Primary Airflow - Vpz-sum [m3/s]	System Primary Airflow - Vps [m3/s]	Sum of Zone Discharge Airflow - Vdz-sum [m3/s]	Sum of Min Zone Primary Airflow - Vpz-min [m3/s]	Zone Outdoor Airflow Heating - Voz-htg [m3/s]	Zone Ventilation Efficiency - Evz-min
None						

Report: **LEED Summary**

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For: **Entire Facility**

Timestamp: **2022-01-20 22:16:41**

Sec1.1A-General Information

	Data
Weather File	HALA WALA (O1-O1:31-12) ** LONDON/GATWICK - GBR IWEC Data WMO#=037760
Total gross floor area [m2]	233.76
Principal Heating Source	District Heat

EAp2-1. Space Usage Type

	Space Area [m2]	Regularly Occupied Area [m2]	Unconditioned Area [m2]	Typical Hours/Week in Operation [hr/wk]
HALAWALARESTAURANT:BOH	80.83	80.83	0.00	40.04
HALAWALARESTAURANT:SITTINGAREA	94.27	94.27	0.00	112.00
HALAWALARESTAURANT:KITCHENAREA	58.67	58.67	0.00	126.00
Totals	233.76	233.76	0.00	

EAp2-2. Advisory Messages

	Data
Number of hours heating loads not met	0.00

Number of hours cooling loads not met	0.00
Number of hours not met	0.00

EAp2-3. Energy Type Summary

	Utility Rate	Virtual Rate [$/unit energy]	Units of Energy	Units of Demand
None				

EAp2-4/5. Performance Rating Method Compliance

	Electric Energy Use [kWh]	Electric Demand [W]	Natural Gas Energy Use [kWh]	Natural Gas Demand [W]	Additional Fuel Use [kWh]	Additional Fuel Demand [W]	District Cooling Use [kWh]	District Cooling Demand [W]	District Heating Use [kWh]	District Heating Demand [W]
Heating -- Not Subdivided	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6036.55	6741.00
Cooling -- Not Subdivided	0.00	0.00	0.00	0.00	0.00	0.00	350.88	3803.06	0.00	0.00
Interior Lighting -- General	11803.19	1828.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Exterior Lighting -- Not Subdivided	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interior Equipment -- ELECTRIC EQUIPMENT#HalaWalaRestaurant:BOH#05	29003.57	4397.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interior Equipment -- ELECTRIC EQUIPMENT#HalaWalaRestaurant:KitchenArea#05	15073.24	2478.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Exterior Equipment -- Not Subdivided	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fans -- Ventilation (simple)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pumps -- Not Subdivided	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heat Rejection -- Not Subdivided	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Humidification -- Not Subdivided	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heat Recovery -- Not Subdivided	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Systems -- DHW HalaWalaRestaurant:SittingArea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12502.81	3703.16
Water Systems -- DHW HalaWalaRestaurant:KitchenArea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	451.27	88.31
Refrigeration -- Not Subdivided	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generators -- Not Subdivided	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

EAp2-6. Energy Use Summary

	Process Subtotal [kWh]	Total Energy Use [kWh]
Electricity	44076.81	55880.00
Natural Gas	0.00	0.00
Additional	0.00	19341.52
Total	44076.81	75221.52

EAp2-7. Energy Cost Summary

	Process Subtotal [$]	Total Energy Cost [$]
Electricity	0.00	
Natural Gas	0.00	
Additional	0.00	
Total	0.00	

Process energy cost based on ratio of process to total energy.

L-1. Renewable Energy Source Summary

	Rated Capacity [kW]	Annual Energy Generated [kWh]
Photovoltaic	0.00	0.00
Wind	0.00	0.00

EAp2-17a. Energy Use Intensity - Electricity

	Electricty [kWh/m2]
Interior Lighting (All)	50.49
Space Heating	0.00
Space Cooling	0.00
Fans (All)	0.00
Service Water Heating	0.00
Receptacle Equipment	188.56
Miscellaneous (All)	239.05
Subtotal	239.05

EAp2-17b. Energy Use Intensity - Natural Gas

	Natural Gas [kWh/m2]
Space Heating	0.00
Service Water Heating	0.00

Miscellaneous (All)	0.00
Subtotal	0.00

EAp2-17c. Energy Use Intensity - Additional

	Additional [kWh/m2]
Subtotal	0.00
Miscellaneous	0.00

EAp2-18. End Use Percentage

	Percent [%]
Interior Lighting (All)	15.69
Space Heating	8.03
Space Cooling	0.47
Fans (All)	0.00
Service Water Heating	17.22
Receptacle Equipment	58.60
Miscellaneous	0.00

Schedules-Equivalent Full Load Hours (Schedule Type=Fraction)

	Equivalent Full Load Hours of Operation Per Year [hr]	Hours > 1% [hr]
RESTPUB_EATDRINK_OCC	3376.	5840.
RESTPUB_FOODPREP_OCC	5110.	6570.
RESTPUB_FOODPREP_EQUIP	6083.	8760.
RESTPUB_FOODPREP_LIGHT	6570.	6570.
RESTPUB_PLANT_OCC	21.	2088.
RESTPUB_PLANT_EQUIP	6595.	8760.
RESTPUB_PLANT_LIGHT	21.	2088.

Schedules-SetPoints (Schedule Type=Temperature)

	First Object Used	Month Assumed	11am First Wednesday [C]	Days with Same 11am Value	11pm First Wednesday [C]	Days with Same 11pm Value
HALAWALARESTAURANT:BOH HEATING SETPOINT SCHEDULE	DUAL SETPOINT - ZONE HALAWALARESTAURANT:BOH	January	-50.00	365	-50.00	365
HALAWALARESTAURANT:BOH COOLING SP SCH	DUAL SETPOINT - ZONE HALAWALARESTAURANT:BOH	July	100.00	365	100.00	365
HALAWALARESTAURANT:SITTINGAREA HEATING SETPOINT SCHEDULE	DUAL SETPOINT - ZONE HALAWALARESTAURANT:SITTINGAREA	January	23.00	365	23.00	365
HALAWALARESTAURANT:SITTINGAREA COOLING SP SCH	DUAL SETPOINT - ZONE HALAWALARESTAURANT:SITTINGAREA	July	25.00	365	100.00	365
HALAWALARESTAURANT:KITCHENAREA HEATING SETPOINT SCHEDULE	DUAL SETPOINT - ZONE HALAWALARESTAURANT:KITCHENAREA	January	17.00	365	17.00	365
HALAWALARESTAURANT:KITCHENAREA COOLING SP SCH	DUAL SETPOINT - ZONE HALAWALARESTAURANT:KITCHENAREA	July	100.00	365	100.00	365

Report: **ZoneHeatingSummaryMonthly**

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For: **HALAWALARESTAURANT:BOH**

Timestamp: **2022-01-20 22:16:41**

Custom Monthly Report

	ZONE AIR SYSTEM SENSIBLE HEATING ENERGY [kWh]	ZONE AIR SYSTEM SENSIBLE HEATING RATE []	SITE OUTDOOR AIR DRYBULB TEMPERATURE {AT MAX/MIN} [C]
January	0.00	0.00	0.00
February	0.00	0.00	0.00
March	0.00	0.00	0.00
April	0.00	0.00	0.00
May	0.00	0.00	0.00
June	0.00	0.00	0.00
July	0.00	0.00	0.00
August	0.00	0.00	0.00
September	0.00	0.00	0.00
October	0.00	0.00	0.00
November	0.00	0.00	0.00
December	0.00	0.00	0.00
Annual Sum or Average	0.00		
Minimum of Months	0.00	0.00	0.00
Maximum of Months	0.00	0.00	0.00

Report: **ZoneHeatingSummaryMonthly**

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For: **HALAWALARESTAURANT:SITTINGAREA**

Timestamp: **2022-01-20 22:16:41**

Custom Monthly Report

	ZONE AIR SYSTEM SENSIBLE HEATING ENERGY [kWh]	ZONE AIR SYSTEM SENSIBLE HEATING RATE []	SITE OUTDOOR AIR DRYBULB TEMPERATURE {AT MAX/MIN} [C]
January	1173.30	0.00	0.00
February	999.02	0.00	0.00
March	716.11	0.00	0.00
April	369.58	0.00	0.00
May	137.64	0.00	0.00
June	79.90	0.00	0.00
July	17.27	0.00	0.00
August	41.38	0.00	0.00
September	144.91	0.00	0.00
October	432.35	0.00	0.00
November	767.57	0.00	0.00
December	1144.57	0.00	0.00
Annual Sum or Average	6023.60		
Minimum of Months	17.27	0.00	0.00
Maximum of Months	1173.30	0.00	0.00

Report: **ZoneHeatingSummaryMonthly**

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For: **HALAWALARESTAURANT:KITCHENAREA**

Timestamp: **2022-01-20 22:16:41**

Custom Monthly Report

	ZONE AIR SYSTEM SENSIBLE HEATING ENERGY [kWh]	ZONE AIR SYSTEM SENSIBLE HEATING RATE []	SITE OUTDOOR AIR DRYBULB TEMPERATURE {AT MAX/MIN} [C]
January	0.00	0.00	0.00
February	0.00	0.00	0.00
March	0.00	0.00	0.00
April	0.00	0.00	0.00
May	0.00	0.00	0.00
June	0.00	0.00	0.00
July	0.00	0.00	0.00
August	0.00	0.00	0.00
September	0.00	0.00	0.00
October	0.00	0.00	0.00
November	0.00	0.00	0.00
December	0.00	0.00	0.00
Annual Sum or Average	0.00		
Minimum of Months	0.00	0.00	0.00
Maximum of Months	0.00	0.00	0.00