EuroPHit

D3.9_Overall Refurbishment Plan

CS01_Home for Elderly, Dun Laoghaire

INTELLIGENT ENERGY – EUROPE II

Energy efficiency and renewable energy in buildings

IEE/12/070

EuroPHit

[Improving the energy performance of step-by-step refurbishment and integration of renewable energies]

Contract N°: SI2.645928

Co-funded by the Intelligent Energy Europe Programme of the European Union

Technical References

Project Acronym	EuroPHit
Project Title	Improving the energy performance of step-by-step refurbishment and integration of renewable energies
Project Coordinator	Jan Steiger Passive House Institute, Dr. Wolfgang Feist Rheinstrasse 44/46 D 64283 Darmstadt jan.steiger@passiv.de
Project Duration	1 April 2013 – 31March 2016 (36 Months)

Deliverable No.	D3.9
Dissemination Level	PU
Work Package	WP3_Practical Implementation
Lead beneficiary	04_MosArt
Contributing beneficiary(ies)	CB4, MosArt
Author(s)	Mariana Moreira
Co-author(s)	Art McCormack
Date	08 03 2016
File Name	EuroPHit_D3.9_CS01_HomeforElderly_Dun Laoghaire.doc

EnerPHit Retrofit Plan

Target standard: EnerPHit Classic

EuroPHit

before current

Object:	Block One Rochestown House		
Street:	Sallynogin Road Upper		
Postcode/city:		End-of-terrace Passive House	
Province/country:	Dublin	Passivhaus-Reihenendhaus	
Object type:	Home for Elderly		
Climate data set:	IE0001a-Dublin		
Climate zone:	3: Cool-temperate	Altitude of location:	45

Owner:	DLR CC		
Street:	Dún Laoghaire		
Postcode/city:		Dún Laoghaire	
Province/country:	Dublin	IE-Ireland	

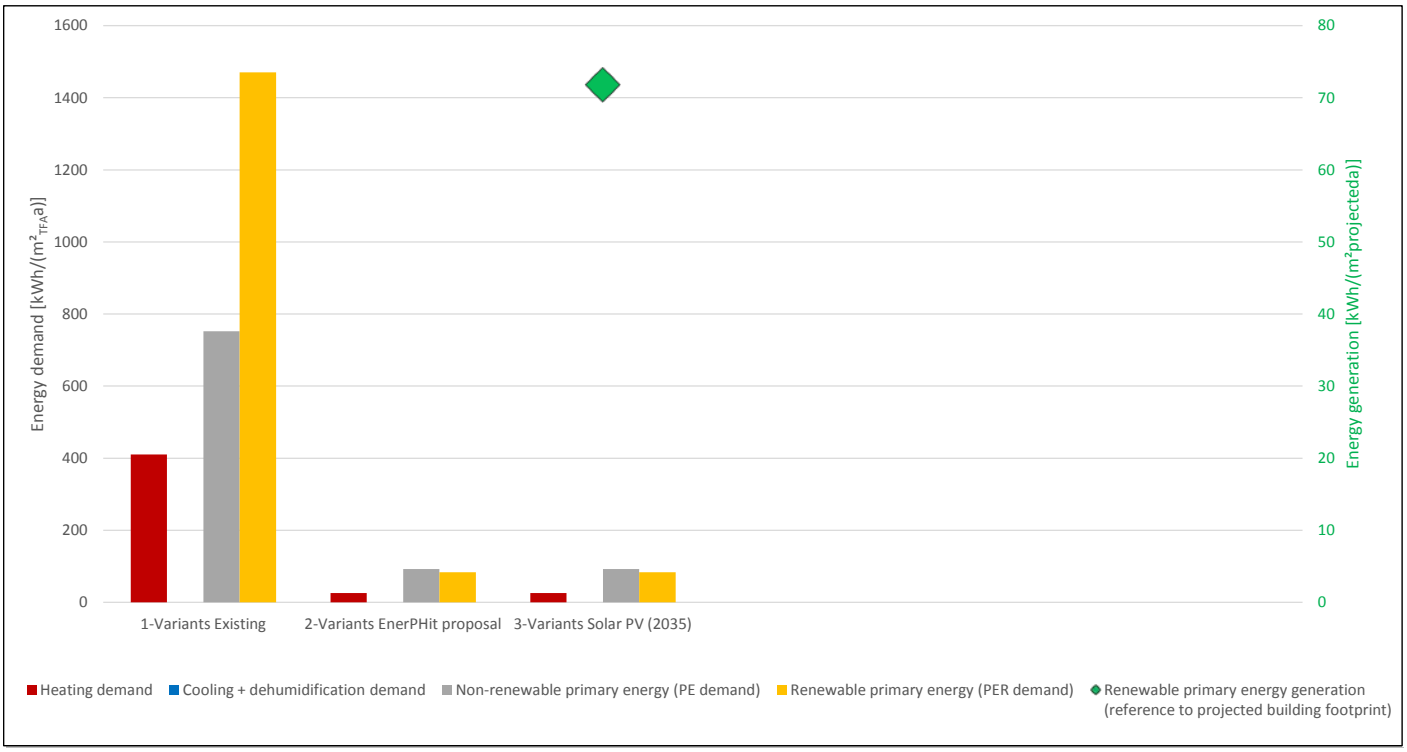
Architecture:	DLR CC		
Street:	Dún Laoghaire		
Postcode/city:	Dún Laoghaire		
Province/country:		IE-Ireland	

Tech. systems:			
Street:			
Postcode/city:			
Province/country:			

Energy consulting:	MosArt		
Street:	Block 6 Broomhall Business Park		
Postcode/city:		Wicklow	
Province/country:	Wicklow	IE-Ireland	

Certification:			
Street:			
Postcode/city:			
Province/country:			

Year of construction:	2016	Interior temp. winter [°C]:	20.0	Interior temp. summer [°C]:	25.0
ber of dwelling units:	34	Treated floor area:	1856.1	No. of occupants	52.3



I confirm that the values given herein have been determined following the PHPP methodology and based on the characteristic values of the building. The PHPP calculations are attached to this verification.

First name	Last name	Signature
Mariana	Moreira	

Company	Issued (date)	City
MosArt Architects	31.03.2016	Wicklow

#VALUE!

Dear building owner,

in the next few years you intend to modernise your building and to improve stepwise its level of thermal protection. This "EnerPHit Retrofit Plan" will help you to make the right decisions at each step.

EnerPHit Standard

In the case of refurbishments of existing buildings, it is not always possible to fully achieve the Passive House Standard with reasonable effort. The reasons for this lie e.g. in the unavoidable thermal bridges due to existing basement walls. For such buildings, the Passive House Institute has developed the EnerPHit Standard. With the use of Passive House components, EnerPHit retrofitted buildings offer almost all the advantages of a Passive House building with optimum cost-effectiveness at the same time:

• Comfortable living with uniformly warm walls, floors and windows
• Draughts, condensation and mould growth are no longer a problem
• Permanent supply of fresh air with a pleasant temperature
• Independence from energy price fluctuations
• Financial profits from the very first year on due to up to 90 % reduced heating costs
• Climate protection due to decreased CO2 emissions of the same scale

EnerPHit Retrofit Plan

Most buildings are modernised in a step-by-step way when the respective building component needs to be renewed. Advantage can be taken of such opportunities to carry out future-oriented improvements to the thermal protection of the building. For example, if the façade already needs to be renewed anyway, the extra effort for thermal protection of the exterior wall to the Passive House quality at the same time will be manageable. Nevertheless, many interdependencies exist between individual energy efficiency measures, so that a good standard of thermal protection can only be achieved cost-effectively if an overall concept is prepared for the entire building prior to the first modernisation step. With the modernisation route planner, such an overall concept will be worked out for you by your Passive House Designer or energy consultant. This offers you the following advantages:

• Preparing for future steps already with today's measures will save costs on the whole and will ensure an optimal final outcome.
• An excellent final outcome can only be achieved if each individual step is implemented with the appropriate quality (EnerPHit-Standard).
• Once the overall concept has been prepared, it is available for every further step and thus facilitates the planning process (you don't have to start from the beginning every time).
• The energy demand is stated for each step.
• The approximate time points for upcoming refurbishment measures are stated in the general plan. This serves as a valuable aid for personal finance planning.

Pre-certification

The modernisation route planner as well as other relevant documents can be checked by a PHI accredited certifier for additional quality assurance. If the examination shows that the EnerPHit Standard will be achieved with the implementation of all planned measures, then the first step can be carried out. After this a preliminary EnerPHit certificate can then be issued for the building. If quality assurance is continued accordingly for each step, then the full EnerPHit certificate will be issued for the building upon completion of the last step. A preliminary certificate increases the value of your building because its potential is clearly demonstrated. It also increases the credibility of the refurbishment concept in the context of talks with the bank e.g. because the achievable cost saving is available in a reliably calculated way. Apart from that, you can demonstrate to the outside world that you are committed to climate protection.

I wish you every success with your retrofit project!

Mariana Moreira (MosArt Architects)

Scheduler

Source file: '674_PHPP_V9.3a_EN_20160216_ERP_beta XL.xlsm' (PHPP version: 9.3)

EnerPHit Retrofit Plan: Block One Rochestown House, Dún Laoghaire, IE-Ireland

Retrofit steps:														1	2			3						
Assemblies	Last renewal	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065
Exterior Walls Insulated	2016																								
New floor over existing two story building	2016																								
New PH Windows	2016																								
Exterior glazed doors	2016																								
HRV in each apartment and commun areas	2016																								
Flat roof	2016																								
CHP Boiler	2016																								
Solar thermal system	2020																								
PV Panels	2035																								
Airtightn. test: X, Leakage search: (X)																X									

Initial condition

X Retrofit dates

Main-tenance

Smaller Repairs

Extensive Repairs

Immediate replacement

Overview of measures

Source file: '674_PHPP_V9.3a_EN_20160216_ERP_beta XL.xlsm' (PHPP version: 9.3)

EnerPHit Retrofit Plan: Block One Rochestown House, Dún Laoghaire, IE-Ireland

Retrofit step No.		1-Variants Existing	2-Variants EnerPHit proposal	3-Variants Solar PV (2035)				Criteria	Alternative criteria
Year		1960	2016	2035					
Measures									
Occasion ("anyway measure")	1	Construciton of existing	External insulate existing	PV Panels					
Energy-saving measure									
Occasion ("anyway measure")	2		PH windows and doors to existing building						
Energy-saving measure									
Occasion ("anyway measure")	3		New floor over existing two story building improving the compactness of building. Built to PH standard						
Energy-saving measure									
Occasion ("anyway measure")	4		Heat recovery ventilation system to each apartment and communal spaces & CHP gas sourced, to heat space and water.						
energy-saving measure									
Occasion ("anyway measure")	5								
energy-saving measure									
Occasion ("anyway measure")	6								
energy-saving measure									
Occasion ("anyway measure")	7								
energy-saving measure									
Occasion ("anyway measure")	8								
energy-saving measure									
Component characteristics									
Wall to ambient air, ext. insulation (U-value)	[W/(m²K)]	3.57	0.16	0.16					
Roof (U-value)	[W/(m²K)]	4.36	0.13	0.13					
Building envelope to ambient (U value)	[W/(m²K)]	3.95	0.15	0.15				-	-
Wall to ground, ext. insulation (U-value)	[W/(m²K)]								
Basement ceiling / floor slab (U-value)	[W/(m²K)]	4.30	4.18	4.18					
Building envelope to ground (U-value)	[W/(m²K)]	4.30	4.18	4.18				-	-
Wall, int. insulation to ambient air (U-Value)	[W/(m²K)]	-	-	-				-	-
Wall, int. insulation to ground (U-Value)	[W/(m²K)]	-	-	-				-	-
Flat roof (solar reflection index, SRI)	[W/(m²K)]	45.20	45.45	45.45				-	-
Inclined and vertical external surface (SRI)	[W/(m²K)]	45	55	55				-	-
Windows / doors ($U_{installed}$)	[W/(m²K)]	1.70	0.91	0.91				-	-
Windows ($U_{W,installed}$)	[W/(m²K)]	-	-	-				-	-
Windows ($U_{W,installed}$)	[W/(m²K)]	-	-	-				-	-
Glazing (g-value)	[]	0.64	0.46	0.46				-	-
Glazing/sun protection (max. solar load)	[kWh/(m²a)]	291	1	1				-	-
Ventilation (effective heat recovery efficiency)	[%]	0	74	74				-	-
Ventilation (effective humidity recovery efficiency)	[%]	0	0	0				-	-
Airchange at press. test n_{50}	[1/h]	5.0	0.9	0.9				1.0	-
Building characteristics									
Heating demand	[kWh/(m²a)]	410	25	25				25	-
Heating load	[W/m²]	111	11	11				-	-
Cooling + dehumidification demand	[kWh/(m²a)]	-	-	-				-	-
Cooling load	[kWh/(m²a)]	-	-	-				-	-
Frequency of overheating (> 25 °C)	[%]	0	0	0				10	-
Frequency of exc. high humidity (> 12 g/kg)	[%]	0	0	0				20	-
Non-renewable primary energy (PE demand)	[kWh/(m²a)]	752	92	92				132	-
Renewable primary energy (PER demand)	[kWh/(m²a)]	1470	83	83				-	-
Renewable primary energy generation (reference to projected building footprint)	[kWh/(m²a)]	0	0	72				-	-
Criteria fulfilled for EnerPHit Classic?		no	yes	yes					
Costs									
Energy-related invest. (interest+repayment)	[€/year]	0	0	0					
Expected energy costs (total of all energy use in the building)	[€/year]	100500	20100	20100					
Total cost (investment+energy)	**[€/year]**	**100500**	**20100**	**20100**					

Investment and maintenance costs

Source file: '674_PHPP_V9.3a_EN_20160216_ERP_beta XL.xlsm' (PHPP version: 9.3)

EnerPHit Retrofit Plan: Block One Rochestown House, Dún Laoghaire, IE-Ireland

	Retrofit step No.	1-Variants Existing	proposal	(2035)			
	Year	1960	2016	2035			
1	**Occasion ("anyway measure")**	**Construciton of existing building**	**External insulate existing walls**	**PV Panels**			
	Investment costs		**188,000 €**				
	Maintenance costs						
	Energy-saving measure						
	Investment costs						
	Financial support (present value)						
	Maintenance costs						
	Service life [years]						
	Present value factor	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity factor	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity ("anyway measure")	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity (Energy saving measure)	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity (energy-related)	**0 €**	**0 €**	**0 €**	**0 €**	**0 €**	**0 €**
2	**Occasion ("anyway measure")**		**PH windows and doors to existing building**				
	Investment costs		**111,000 €**				
	Maintenance costs						
	Energy-saving measure						
	Investment costs						
	Financial support (present value)						
	Maintenance costs						
	Service life [years]						
	Present value factor	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity factor	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity ("anyway measure")	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity (Energy saving measure)	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity (energy-related)	**0 €**	**0 €**	**0 €**	**0 €**	**0 €**	**0 €**
3	**Occasion ("anyway measure")**		**New floor over existing two story building**				
	Investment costs		**352,785 €**				
	Maintenance costs						
	Energy-saving measure						
	Investment costs						
	Financial support (present value)						
	Maintenance costs						
	Service life [years]						
	Present value factor	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity factor	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity ("anyway measure")	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity (Energy saving measure)	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity (energy-related)	**0 €**	**0 €**	**0 €**	**0 €**	**0 €**	**0 €**
4	**Occasion ("anyway measure")**		**Heat recovery ventilation system to each apartment and communal spaces &**				
	Investment costs		**677,700 €**				
	Maintenance costs						
	Energy-saving measure						
	Investment costs						
	Financial support (present value)						
	Maintenance costs						
	Service life [years]						
	Present value factor	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity factor	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity ("anyway measure")	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity (Energy saving measure)	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity (energy-related)	**0 €**	**0 €**	**0 €**	**0 €**	**0 €**	**0 €**
5	**Occasion ("anyway measure")**						
	Investment costs						
	Maintenance costs						
	Energy-saving measure						
	Investment costs						
	Financial support (present value)						
	Maintenance costs						
	Service life [years]						
	Present value factor	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity factor	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity ("anyway measure")	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity (Energy saving measure)	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity (energy-related)	**0 €**	**0 €**	**0 €**	**0 €**	**0 €**	**0 €**
6	**Occasion ("anyway measure")**						
	Investment costs						
	Maintenance costs						
	Energy-saving measure						
	Investment costs						
	Financial support (present value)						
	Maintenance costs						
	Service life [years]						
	Present value factor	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity factor	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity ("anyway measure")	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity (Energy saving measure)	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity (energy-related)	**0 €**	**0 €**	**0 €**	**0 €**	**0 €**	**0 €**
7	**Occasion ("anyway measure")**						
	Investment costs						
	Maintenance costs						
	Energy-saving measure						
	Investment costs						
	Financial support (present value)						
	Maintenance costs						
	Service life [years]						
	Present value factor	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity factor	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity ("anyway measure")	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity (Energy saving measure)	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity (energy-related)	**0 €**	**0 €**	**0 €**	**0 €**	**0 €**	**0 €**
8	**Occasion ("anyway measure")**						
	Investment costs						
	Maintenance costs						
	Energy-saving measure						
	Investment costs						
	Financial support (present value)						
	Maintenance costs						
	Service life [years]						
	Present value factor	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity factor	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity ("anyway measure")	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity (Energy saving measure)	0 €	0 €	0 €	0 €	0 €	0 €
	Annuity (energy-related)	**0 €**	**0 €**	**0 €**	**0 €**	**0 €**	**0 €**
	Total annuities (energy-related)	0 €	0 €	0 €	0 €	0 €	0 €
	Cumulated sums	**0 €**	**0 €**	**0 €**	**0 €**	**0 €**	**0 €**

Boundary conditions: Nominal interest rate 3.0% Inflation 1.0% Real interest rate 2.0%

Building assemblies (U-values)

Source file: '674_PHPP_V9.3a_EN_20160216_ERP_beta XL.xlsm' (PHPP version: 9.3)

EnerPHit Retrofit Plan: Block One Rochestown House, Dún Laoghaire, IE-Ireland

Assembly: 14ud-Existing Wall 250 Area: 0.0 m²

Areas with this assembly: **Existing Wall NW**

Retrofit step: 1-Variants Existing 1960

Subarea 1	λ [W/(mK)]	Subarea 2 (optional)	λ [W/(mK)]	Subarea 3 (optional)	λ [W/(mK)]	Thickness [mm]
Concrete	2.100					232
	0.031					0

Fraction subarea 1	Fraction subarea 2	Fraction subarea 3	Total
100%	0%	0%	**23.2** cm

U-value supplement 0 W/(m²K) **U-value:** W/(m²K)

preparation for subsequent steps:

Retrofit step: 2-Variants EnerPHit proposal 2016

Subarea 1	λ [W/(mK)]	Subarea 2 (optional)	λ [W/(mK)]	Subarea 3 (optional)	λ [W/(mK)]	Thickness [mm]
Concrete	2.100					232
	0.031					250

Fraction subarea 1	Fraction subarea 2	Fraction subarea 3	Total
100%	0%	0%	**48.2** cm

U-value supplement 0 W/(m²K) **U-value:** W/(m²K)

preparation for subsequent steps:

Assembly: **14ud-Existing Wall 250**

Advice

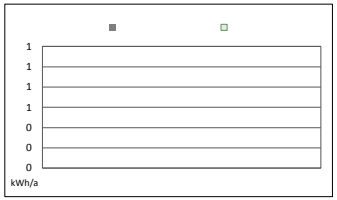
Plan / sketch / image

Description : Site photo showing external insulation being installed in the existing concrete wall panels

Windows

Block One Rochestown House / Climate: Dublin / TFA: 1856 m² / Heating: 25.4 kWh/(m²a) / Freq. overheating: 0 % / PER: 83.1 kWh/(m²a)

Window area orientation	Global radiation (main orientations)	Shading	Dirt	Non-vertical radiation incidence	Glazing fraction	g-Value	Solar irradiation reduction factor	Window area	Window U-Value	Glazing area	Average global radiation		Transmission losses heating period	Heating gains solar radiation heating period
Standard values →	kWh/(m²a)	0.75	0.95	0.85				m²	W/(m²K)	m²	kWh/(m²a)		kWh/a	kWh/a
North	121	0.68	0.95	0.85	0.67	0.48	0.37	9.60	1.08	6.43	137	North	702	232
East	235	0.53	0.95	0.85	0.58	0.46	0.25	145.01	0.83	84.78	320	East	8160	5333
South	396	0.37	0.95	0.85	0.73	0.45	0.22	1.97	0.70	1.44	367	South	94	72
West	243	0.32	0.95	0.85	0.60	0.46	0.16	160.30	0.94	96.31	170	West	10270	1956
Horizontal	372	1.00	0.95	0.85	0.00	0.00	0.00	0.00	0.00	0.00	372	Horizontal	0	0
Total or average value for all windows.						0.46	0.21	316.88	0.89	188.95			19226	7593



Heating degree hours [kKh/ 67.9

Go to glazing list Go to window frames list

Qua n-tity	Description	Deviation from north	Angle of inclination from the horizontal	Orien- tation	Window rough openings Width	Window rough openings Height	Installed in: Selection from 'Areas' worksheet	Glazing: Selection from 'Components' worksheet	Frame: Selection from 'Components' worksheet	g-Value: Perpen-dicular radiation	U-Value: Glazing	U-Value: Frames (avg.)	Ψ Glazing edge (Avg.)	Installation situation: left	right	bottom	top	Ψ Installation (Avg.)	Results: Window Area	Glazing area	U_w installed	Glazed fraction per window
		°	°		m	m		Sort: AS LIST	Sort: AS LIST	-	W/(m²K)	W/(m²K)	W/(mK)	W/(mK) or 1/0				W/(mK)	m²	m²	W/(m²K)	%
0	wi-nw-3	305	90	West	1.100	1.525	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-4	305	90	West	1.100	0.875	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-5D	305	90	West	1.100	2.200	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-nw-6	305	90	West	1.459	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	1	0	0.040				
0	wi-nw-6	305	90	West	0.639	1.000	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	0	0	0.040				
0	wi-nw-6	305	90	West	0.639	0.530	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	0	1	0.040				
0	wi-nw-6	305	90	West	0.820	1.530	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	0	0	0	1	0.040				
0	wi-nw-6	305	90	West	1.459	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	1	0	0.040				
0	wi-nw-6	305	90	West	0.639	1.000	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	0	0	0.040				
0	wi-nw-6	305	90	West	0.639	0.530	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	0	1	0.040				
0	wi-nw-6	305	90	West	0.820	1.530	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	0	0	0	1	0.040				
0	wi-nw-7	305	90	West	1.459	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	1	0	0.040				
0	wi-nw-7	305	90	West	0.639	1.000	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	0	0	0.040				
0	wi-nw-7	305	90	West	0.639	0.530	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	0	1	0.040				
0	wi-nw-7	305	90	West	0.820	1.530	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	0	0	0	1	0.040				
0	wi-nw-7	305	90	West	1.459	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	1	0	0.040				
0	wi-nw-7	305	90	West	0.639	1.000	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	0	0	0.040				
0	wi-nw-7	305	90	West	0.639	0.530	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	0	1	0.040				
0	wi-nw-7	305	90	West	0.820	1.530	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	0	0	0	1	0.040				
0	wi-nw-8	305	90	West	1.459	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	1	0	0.040				
0	wi-nw-8	305	90	West	0.639	1.000	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	0	0	0.040				
0	wi-nw-8	305	90	West	0.639	0.530	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	0	1	0.040				
0	wi-nw-8	305	90	West	0.820	1.530	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	0	0	0	1	0.040				
0	wi-nw-8	305	90	West	1.459	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	1	0	0.040				
0	wi-nw-8	305	90	West	0.639	1.000	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	0	0	0.040				
0	wi-nw-8	305	90	West	0.639	0.530	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	0	1	0.040				
0	wi-nw-8	305	90	West	0.820	1.530	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	0	0	0	1	0.040				
0	wi-nw-9	305	90	West	0.570	1.060	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-nw-10	305	90	West	1.135	1.075	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	1	0	0.040				

Heating degree hours [kKh/ 67.9

					Window rough openings		Installed in	Glazing	Frame	g-Value	U-Value		Ψ Glazing edge	Installation situation user determined value for $\Psi_{installation}$ or '1': $\Psi_{installation}$ from 'Components' worksheet '0': in the case of abutting windows					Results			
Quan-tity	Description	Deviation from north	Angle of inclination from the horizontal	Orien- tation	Width	Height	Selection from 'Areas' worksheet	Selection from 'Components' worksheet	Selection from 'Components' worksheet	Perpen-dicular radiation	Glazing	Frames (avg.)	$\Psi_{Glazing\ edge}$ (Avg.)	left	right	bottom	top	$\Psi_{Installation}$ (Avg.)	Window Area	Glazing area	U_w installed	Glazed fraction per window
		°	°		m	m		Sort: AS LIST	Sort: AS LIST	-	W/(m²K)	W/(m²K)	W/(mK)	W/(mK) or 1/0				W/(mK)	m²	m²	W/(m²K)	%
0	wi-nw-10	305	90	West	1.135	1.260	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	0	1	0.040				
0	wi-nw-10	305	90	West	1.093	2.335	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	02ud PVC - Doors Estimation	0.64	1.30	1.60	0.040	0	1	1	1	0.040				
0	wi-nw-11	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-11	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-11	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-12	305	90	West	0.875	0.665	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-nw-13	305	90	West	0.875	0.665	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-nw-14	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-14	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-14	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-15	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-15	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-15	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-16	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-16	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-16	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-17	305	90	West	0.875	0.665	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-nw-18	305	90	West	0.875	0.665	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-nw-19	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-19	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-19	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-20	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-20	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-20	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-21	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-21	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-21	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-22	305	90	West	0.875	0.665	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-nw-23	305	90	West	0.875	0.665	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-nw-24	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-24	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-24	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-25	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-25	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-25	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-26	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-26	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-26	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-27	305	90	West	0.875	0.665	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				

Heating degree hours [kKh/ 67.9

					Window rough openings		Installed in	Glazing	Frame	g-Value	U-Value		Ψ Glazing edge	Installation situation user determined value for $\Psi_{installation}$ or '1': $\Psi_{installation}$ from 'Components' worksheet '0': in the case of abutting windows					Results			
Quan-tity	Description	Deviation from north	Angle of inclination from the horizontal	Orien- tation	Width	Height	Selection from 'Areas' worksheet	Selection from 'Components' worksheet	Selection from 'Components' worksheet	Perpen-dicular radiation	Glazing	Frames (avg.)	$\Psi_{Glazing\ edge}$ (Avg.)	left	right	bottom	top	$\Psi_{Installation}$ (Avg.)	Window Area	Glazing area	U_w installed	Glazed fraction per window
		°	°		m	m		Sort: AS LIST	Sort: AS LIST	-	W/(m²K)	W/(m²K)	W/(mK)	W/(mK) or 1/0				W/(mK)	m²	m²	W/(m²K)	%
0	wi-nw-28	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-28	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-28	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-29	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-29	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-29	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-30	305	90	West	0.875	0.665	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-nw-31	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-31	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-31	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-32	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-32	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-32	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-33	305	90	West	0.875	0.665	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-nw-34	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-34	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-34	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-35	305	90	West	0.570	1.060	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-nw-36	305	90	West	1.135	1.075	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	1	0	0.040				
0	wi-nw-36	305	90	West	1.135	1.260	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	0	1	0.040				
0	wi-nw-36	305	90	West	1.135	1.075	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	1	0	0.040				
0	wi-nw-36	305	90	West	1.135	1.260	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	0	1	0.040				
0	wi-nw-37	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-37	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-37	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-38	305	90	West	0.875	0.665	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-nw-39	305	90	West	0.875	0.665	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-nw-40	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-40	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-40	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-41	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-41	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-41	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-42	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-42	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-42	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-43	305	90	West	0.875	0.665	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-nw-44	305	90	West	0.875	0.665	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-nw-45	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				

Heating degree hours [kKh/ 67.9

					Window rough openings		Installed in	Glazing	Frame	g-Value	U-Value		Ψ Glazing edge	Installation situation user determined value for $\Psi_{installation}$ or '1': $\Psi_{installation}$ from 'Components' worksheet '0': in the case of abutting windows					Results			
Quan-tity	Description	Deviation from north	Angle of inclination from the horizontal	Orien- tation	Width	Height	Selection from 'Areas' worksheet	Selection from 'Components' worksheet	Selection from 'Components' worksheet	Perpen-dicular radiation	Glazing	Frames (avg.)	$\Psi_{Glazing\ edge}$ (Avg.)	left	right	bottom	top	$\Psi_{Installation}$ (Avg.)	Window Area	Glazing area	U_w installed	Glazed fraction per window
		°	°		m	m		Sort: AS LIST	Sort: AS LIST	-	W/(m²K)	W/(m²K)	W/(mK)	W/(mK) or 1/0				W/(mK)	m²	m²	W/(m²K)	%
0	wi-nw-45	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-45	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-46	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-46	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-46	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-47	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-47	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-47	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-48	305	90	West	0.875	0.665	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-nw-49	305	90	West	0.875	0.665	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-nw-50	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-50	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-50	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-51	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-51	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-51	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-52	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-52	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-52	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-53	305	90	West	0.875	0.665	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-nw-54	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-54	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-54	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-55	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-55	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-55	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-nw-56	305	90	West	0.875	0.665	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-nw-57	305	90	West	1.220	0.445	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-nw-57	305	90	West	1.220	0.694	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-nw-57	305	90	West	1.220	0.655	4-Existing Wall NW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-1	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-1	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-1	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-2	125	90	East	0.875	0.665	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-3	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-3	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-3	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-4	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-4	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				

Heating degree hours [kKh/ 67.9

					Window rough openings		Installed in	Glazing	Frame	g-Value	U-Value		Ψ Glazing edge	Installation situation user determined value for $\Psi_{installation}$ or '1': $\Psi_{installation}$ from 'Components' worksheet '0': in the case of abutting windows					Results			
Quan-tity	Description	Deviation from north	Angle of inclination from the horizontal	Orien- tation	Width	Height	Selection from 'Areas' worksheet	Selection from 'Components' worksheet	Selection from 'Components' worksheet	Perpen-dicular radiation	Glazing	Frames (avg.)	$\Psi_{Glazing\ edge}$ (Avg.)	left	right	bottom	top	$\Psi_{Installation}$ (Avg.)	Window Area	Glazing area	U_w installed	Glazed fraction per window
		°	°		m	m		Sort: AS LIST	Sort: AS LIST	-	W/(m²K)	W/(m²K)	W/(mK)	W/(mK) or 1/0				W/(mK)	m²	m²	W/(m²K)	%
0	wi-se-4	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-5	125	90	East	0.875	0.665	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-6	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-6	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-6	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-7	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-7	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-7	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-8	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-8	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-8	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-9	125	90	East	0.875	0.665	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-10	125	90	East	0.875	0.665	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-11	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-11	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-11	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-12	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-12	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-12	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-13	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-13	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-13	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-14	125	90	East	0.875	0.665	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-15	125	90	East	0.875	0.665	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-16	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-16	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-16	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-17	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-17	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-17	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-18	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-18	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-18	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-19	125	90	East	0.875	0.665	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-20	125	90	East	0.875	0.665	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-21	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-21	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-21	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-22	125	90	East	0.723	1.232	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	0	1	0.040				

Heating degree hours [kKh/ 67.9

					Window rough openings		Installed in	Glazing	Frame	g-Value	U-Value		Ψ Glazing edge	Installation situation user determined value for $\Psi_{installation}$ or '1': $\Psi_{installation}$ from 'Components' worksheet '0': in the case of abutting windows					Results			
Quan-tity	Description	Deviation from north	Angle of inclination from the horizontal	Orien- tation	Width	Height	Selection from 'Areas' worksheet	Selection from 'Components' worksheet	Selection from 'Components' worksheet	Perpen-dicular radiation	Glazing	Frames (avg.)	$\Psi_{Glazing\ edge}$ (Avg.)	left	right	bottom	top	$\Psi_{Installation}$ (Avg.)	Window Area	Glazing area	U_w installed	Glazed fraction per window
		°	°		m	m		Sort: AS LIST	Sort: AS LIST	-	W/(m²K)	W/(m²K)	W/(mK)	W/(mK) or 1/0				W/(mK)	m²	m²	W/(m²K)	%
0	wi-se-22	125	90	East	0.698	1.232	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	0	0	0	1	0.040				
0	wi-se-22	125	90	East	0.958	1.232	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	0	1	0	1	0.040				
0	wi-se-22	125	90	East	0.723	0.946	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	0	0	1	0.040				
0	wi-se-22	125	90	East	0.698	0.946	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	0	0	0	1	0.040				
0	wi-se-22	125	90	East	0.958	0.946	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	0	1	0	1	0.040				
0	wi-se-23	125	90	East	0.570	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-24	125	90	East	0.875	0.665	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-25	125	90	East	0.875	0.665	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-26	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-26	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-26	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-27	125	90	East	1.000	0.875	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-27	125	90	East	1.000	1.535	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-28	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-28	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-28	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-29	125	90	East	0.875	0.665	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-30	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-30	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-30	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-31	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-31	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-31	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-32	125	90	East	0.875	0.665	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-33	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-33	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-33	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-34	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-34	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-34	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-35	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-35	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-35	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-36	125	90	East	0.875	0.665	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-37	125	90	East	0.875	0.665	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-38	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-38	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-38	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-39	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				

Heating degree hours [kKh/ 67.9

					Window rough openings		Installed in	Glazing	Frame	g-Value	U-Value		Ψ Glazing edge	Installation situation user determined value for $\Psi_{installation}$ or '1': $\Psi_{installation}$ from 'Components' worksheet '0': in the case of abutting windows					Results			
Quan-tity	Description	Deviation from north	Angle of inclination from the horizontal	Orien- tation	Width	Height	Selection from 'Areas' worksheet	Selection from 'Components' worksheet	Selection from 'Components' worksheet	Perpen-dicular radiation	Glazing	Frames (avg.)	$\Psi_{Glazing\ edge}$ (Avg.)	left	right	bottom	top	$\Psi_{Installation}$ (Avg.)	Window Area	Glazing area	U_w installed	Glazed fraction per window
		°	°		m	m		Sort: AS LIST	Sort: AS LIST	-	W/(m²K)	W/(m²K)	W/(mK)	W/(mK) or 1/0				W/(mK)	m²	m²	W/(m²K)	%
0	wi-se-39	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-39	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-40	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-40	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-40	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-41	125	90	East	0.875	0.665	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-42	125	90	East	0.875	0.665	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-43	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-43	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-43	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-44	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-44	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-44	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-45	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-45	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-45	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-46	125	90	East	0.875	0.665	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-47	125	90	East	0.875	0.665	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-48	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-48	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-48	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-49	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-49	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-49	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-50	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-50	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-50	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-51	125	90	East	0.875	0.665	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-52	125	90	East	0.875	0.665	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	1	0.040				
0	wi-se-53	125	90	East	1.220	0.445	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-se-53	125	90	East	1.220	0.694	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-se-53	125	90	East	1.220	0.655	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-54	125	90	East	1.000	0.875	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
0	wi-se-54	125	90	East	1.000	1.535	3-Existing Wall SE	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-sw-6	215	90	South	1.220	0.445	5-Existing Wall SW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	1	0	0.040				
0	wi-sw-6	215	90	South	1.220	0.694	5-Existing Wall SW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	0	0.040				
0	wi-sw-6	215	90	South	1.220	0.655	5-Existing Wall SW	01ud Double low-e 4/16Argon90%/4 Epsilon=0.1	01ud PVC - Win Estimation	0.64	1.30	1.60	0.040	1	1	0	1	0.040				
1	win s 69 sash	125	90	East	1.748	0.416	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.76	0.027	1	1	1	1	0.020	0.7	0.21	0.92	29%
1	win s 68 sash	125	90	East	0.875	0.665	3-Existing Wall SE	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win s 67 sash	125	90	East	0.875	0.665	3-Existing Wall SE	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	29 sash	125	90	East	0.875	0.665	3-Existing Wall SE	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%

Heating degree hours [kKh/ 67.9

					Window rough openings		Installed in	Glazing	Frame	g-Value	U-Value		Ψ Glazing edge	Installation situation user determined value for $\Psi_{installation}$ or '1': $\Psi_{installation}$ from 'Components' worksheet '0': in the case of abutting windows					Results			
Quan-tity	Description	Deviation from north	Angle of inclination from the horizontal	Orien- tation	Width	Height	Selection from 'Areas' worksheet	Selection from 'Components' worksheet	Selection from 'Components' worksheet	Perpen-dicular radiation	Glazing	Frames (avg.)	$\Psi_{Glazing\ edge}$ (Avg.)	left	right	bottom	top	$\Psi_{Installation}$ (Avg.)	Window Area	Glazing area	U_w installed	Glazed fraction per window
		°	°		m	m		Sort: AS LIST	Sort: AS LIST	-	W/(m²K)	W/(m²K)	W/(mK)	W/(mK) or 1/0				W/(mK)	m²	m²	W/(m²K)	%
1	win s 30 sash	125	90	East	0.875	0.665	3-Existing Wall SE	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win s 38 sash	125	90	East	1.220	1.185	3-Existing Wall SE	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	1.4	0.87	0.74	60%
1	win s 37 fixed	125	90	East	0.875	0.665	3-Existing Wall SE	02ud VitroTerm glass	10ud fixed Nordan frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.31	0.83	54%
1	d s 2	125	90	East	0.916	2.054	3-Existing Wall SE	04ud Pilkington door glass	12ud door Reynaers frame	0.56	0.80	1.20	0.031	1	1	1	1	0.405	1.9	1.11	2.32	59%
1	win s 36 fixed	125	90	East	0.875	0.665	3-Existing Wall SE	02ud VitroTerm glass	10ud fixed Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.31	0.83	54%
1	win s 75 sash	125	90	East	0.875	0.665	3-Existing Wall SE	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win s 74 sash	125	90	East	0.875	0.665	3-Existing Wall SE	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win s 35 fixed	125	90	East	0.570	0.655	3-Existing Wall SE	02ud VitroTerm glass	10ud fixed Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.4	0.17	0.89	45%
1	win s 65 fixed	125	90	East	0.800	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	1.4	0.96	0.71	67%
1	win s 27 fixed	125	90	East	0.802	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	1.4	0.96	0.71	67%
1	win s 66 sash	125	90	East	0.420	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.23	0.86	30%
1	win s 28 sash	125	90	East	0.418	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.22	0.86	30%
1	win s 71 sash	125	90	East	0.420	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.23	0.86	30%
1	win s 70 fixed	125	90	East	1.220	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	2.2	1.44	0.68	66%
1	win s 72 fixed	125	90	East	0.800	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	1.4	0.80	0.73	56%
1	win s 73 sash	125	90	East	0.420	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.23	0.86	30%
1	win s 77 sash	125	90	East	0.420	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.23	0.86	30%
1	win s 76 fixed	125	90	East	0.800	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	1.4	0.96	0.71	67%
1	win s 32 sash	125	90	East	1.715	0.711	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	0	0	1	0.020	1.2	0.63	0.75	52%
1	win s 33 fixed	125	90	East	1.735	0.857	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.75	0.027	0	1	0	1	0.020	1.5	1.01	0.70	68%
1	win s 31 fixed	125	90	East	1.715	1.422	3-Existing Wall SE	02ud VitroTerm glass	10ud fixed Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	0	0.020	2.4	1.85	0.66	76%
1	d s 1	125	90	East	0.930	2.178	3-Existing Wall SE	04ud Pilkington door glass	12ud door Reynaers frame	0.56	0.80	1.20	0.031	0	1	1	1	0.414	2.0	1.21	1.86	60%
1	win s 34 fixed	125	90	East	1.450	2.178	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	3.2	2.47	0.64	78%
1	win s 115 fixed	125	90	East	1.220	1.795	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.036	1	0.023	2.2	1.63	0.69	74%
1	win s 112 sash	125	90	East	0.971	0.500	16-New Walls SE (no Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	0.036	1	0.025	0.5	0.16	0.93	33%
1	win s 111 sash	125	90	East	0.673	1.360	16-New Walls SE (no Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.036	1	0.023	0.9	0.44	0.81	48%
1	win s 119 sash	125	90	East	0.673	1.360	16-New Walls SE (no Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.036	1	0.023	0.9	0.44	0.81	48%
1	win s 120 sash	125	90	East	0.971	0.500	16-New Walls SE (no Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	0.036	1	0.025	0.5	0.16	0.93	33%
1	win s 109 fixed	125	90	East	0.432	0.899	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	0.131	0.131	0	0.131	0.4	0.16	1.22	42%
1	win s 108 fixed	125	90	East	1.391	2.200	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0.131	0	0.131	0.131	0.131	3.1	2.38	0.82	78%
1	win s 110 sash	125	90	East	0.432	1.301	16-New Walls SE (no Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	0.131	0	0.131	0.131	0.6	0.16	1.19	29%
1	win s 116 fixed	125	90	East	1.391	2.200	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0.131	0	0.131	0.131	0.131	3.1	2.38	0.82	78%
1	win s 117 fixed	125	90	East	0.432	0.899	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	0.131	0.131	0	0.131	0.4	0.16	1.22	42%
1	win s 118 sash	125	90	East	0.432	1.301	16-New Walls SE (no Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	0.131	0	0.131	0.131	0.6	0.16	1.19	29%
1	win s 114 sash	125	90	East	0.414	1.735	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	0.036	1	0.023	0.7	0.21	0.87	29%
1	win s 113 fixed	125	90	East	0.859	1.735	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	0.036	1	0.024	1.5	1.01	0.71	68%
1	win s 121 fixed	125	90	East	0.855	1.735	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	0.036	1	0.024	1.5	1.01	0.71	68%
1	win s 122 sash	125	90	East	0.418	1.735	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	0.036	1	0.023	0.7	0.21	0.87	29%
1	win n 85 fixed	305	90	West	0.852	1.735	10-New Walls NW (with Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	0.038	1	0.024	1.5	1.00	0.71	68%
1	win n 84 sash	305	90	West	0.421	1.735	10-New Walls NW (with Louvers)	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	0.038	1	0.023	0.7	0.22	0.87	30%
1	win n 83 sash	305	90	West	0.971	0.500	10-New Walls NW (with Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	0.038	1	0.026	0.5	0.16	0.93	33%
1	win n 82 fixed	305	90	West	1.541	2.200	10-New Walls NW (with Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.038	1	0.024	3.4	2.68	0.66	79%
1	win n 91 sash	305	90	West	0.673	1.360	10-New Walls NW (with Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.038	1	0.023	0.9	0.44	0.82	48%
1	win n 90 sash	305	90	West	0.971	0.500	10-New Walls NW (with Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	0.038	1	0.026	0.5	0.16	0.93	33%
1	win n 88 sash	305	90	West	0.416	1.735	10-New Walls NW (with Louvers)	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	0.038	1	0.023	0.7	0.21	0.87	29%
1	win n 89 fixed	305	90	West	0.857	1.735	10-New Walls NW (with Louvers)	07ud Pilkington Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	0.038	1	0.024	1.5	1.01	0.71	68%
1	win n 74 sash	305	90	West	0.875	0.665	4-Existing Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win n 35 sash	305	90	West	0.875	0.665	4-Existing Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win n 41 sash	305	90	West	0.875	0.665	4-Existing Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win n 79 sash	305	90	West	0.875	0.665	4-Existing Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%

Heating degree hours [kKh/ 67.9

					Window rough openings		Installed in	Glazing	Frame	g-Value	U-Value		Ψ Glazing edge	Installation situation user determined value for $\Psi_{installation}$ or '1': $\Psi_{installation}$ from 'Components' worksheet '0': in the case of abutting windows					Results			
Quan-tity	Description	Deviation from north	Angle of inclination from the horizontal	Orien- tation	Width	Height	Selection from 'Areas' worksheet	Selection from 'Components' worksheet	Selection from 'Components' worksheet	Perpen-dicular radiation	Glazing	Frames (avg.)	$\Psi_{Glazing\ edge}$ (Avg.)	left	right	bottom	top	$\Psi_{Installation}$ (Avg.)	Window Area	Glazing area	U_w installed	Glazed fraction per window
		°	°		m	m		Sort: AS LIST	Sort: AS LIST	-	W/(m²K)	W/(m²K)	W/(mK)	W/(mK) or 1/0				W/(mK)	m²	m²	W/(m²K)	%
1	win n 76 fixed	305	90	West	0.803	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	1.4	0.96	0.71	67%
1	win n 37 fixed	305	90	West	0.797	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	1.4	0.95	0.71	67%
1	win n 75 sash	305	90	West	0.417	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	0.7	0.22	0.86	30%
1	win n 36 sash	305	90	West	0.423	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	0.8	0.23	0.85	30%
1	win n 80 sash	305	90	West	0.417	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	0.7	0.22	0.86	30%
1	win n 81 fixed	305	90	West	0.803	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	1.4	0.96	0.71	67%
1	win n 42 sash	305	90	West	0.423	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	0.8	0.23	0.85	30%
1	win n 43 fixed	305	90	West	0.797	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	1.4	0.95	0.71	67%
1	win n 73 fixed	305	90	West	0.803	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	1.4	0.96	0.71	67%
1	win n 34 fixed	305	90	West	0.804	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	0	1	0.020	1.4	0.96	0.70	67%
1	win n 72 sash	305	90	West	0.417	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	0.7	0.22	0.86	30%
1	win n 32 fixed	305	90	West	1.220	0.563	4-Existing Wall NW	02ud VitroTerm glass	10ud fixed Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	0	0.020	0.7	0.37	0.79	54%
1	win n 33 sash	305	90	West	0.416	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	0	1	0.020	0.7	0.22	0.85	29%
1	win n 39 sash	305	90	West	0.416	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	0	1	0.020	0.7	0.22	0.85	29%
1	win n 38 fixed	305	90	West	1.220	0.563	4-Existing Wall NW	02ud VitroTerm glass	10ud fixed Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	0	0.020	0.7	0.37	0.79	54%
1	win n 40 fixed	305	90	West	0.804	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	0	1	0.020	1.4	0.96	0.70	67%
1	win n 77 sash	305	90	West	0.417	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	0.7	0.22	0.86	30%
1	win n 78 fixed	305	90	West	0.803	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Nordan frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	1.4	0.96	0.71	67%
1	win s 3 sash	125	90	East	0.875	0.665	3-Existing Wall SE	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win s 42 sash	125	90	East	0.875	0.665	3-Existing Wall SE	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win s 47 sash	125	90	East	0.875	0.665	3-Existing Wall SE	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win s 8 sash	125	90	East	0.875	0.665	3-Existing Wall SE	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win s 1 fixed	125	90	East	0.802	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	1.4	0.96	0.71	67%
1	win s 2 sash	125	90	East	0.418	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.22	0.86	30%
1	win s 40 fixed	125	90	East	0.800	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	1.4	0.96	0.71	67%
1	win s 41 sash	125	90	East	0.420	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.23	0.86	30%
1	win s 5 sash	125	90	East	0.418	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.22	0.86	30%
1	win s 44 fixed	125	90	East	0.420	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.23	0.86	30%
1	win s 4 fixed	125	90	East	0.802	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	1.4	0.96	0.71	67%
1	win s 43 sash	125	90	East	0.800	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	1.4	0.96	0.71	67%
1	win s 6 fixed	125	90	East	0.802	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	1.4	0.96	0.71	67%
1	win s 7 sash	125	90	East	0.418	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.22	0.86	30%
1	win s 45 fixed	125	90	East	0.800	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	1.4	0.96	0.71	67%
1	win s 46 sash	125	90	East	0.420	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.23	0.86	30%
1	win s 48	125	90	East	0.800	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	1.4	0.96	0.71	67%
1	win s 49	125	90	East	0.420	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.23	0.86	30%
1	win s 10 sash	125	90	East	0.418	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.22	0.86	30%
1	win s 9 fixed	125	90	East	0.802	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	1.4	0.96	0.71	67%
1	win s 82 sash	125	90	East	0.971	0.500	16-New Walls SE (no Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	0.036	1	0.025	0.5	0.16	0.93	33%
1	win s 88 sash	125	90	East	0.971	0.500	16-New Walls SE (no Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	0.036	1	0.025	0.5	0.16	0.93	33%
1	win s 79 fixed	125	90	East	1.391	2.200	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0.103	0	0.103	0.103	0.103	3.1	2.38	0.78	78%
1	win s 81 sash	125	90	East	0.432	1.301	16-New Walls SE (no Louvers)	02ud VitroTerm glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	0.103	0	0.103	0.103	0.6	0.26	1.08	45%
1	win s 80 fixed	125	90	East	0.432	0.899	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	0.103	0.103	0	0.103	0.4	0.16	1.12	42%
1	win s 85 fixed	125	90	East	1.391	2.200	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0.103	0	0.103	0.103	0.103	3.1	2.38	0.78	78%
1	win s 87 sash	125	90	East	0.432	1.301	16-New Walls SE (no Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	0.103	0	0.103	0.103	0.6	0.16	1.10	29%
1	win s 86 fixed	125	90	East	0.432	0.899	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	0.103	0.103	0	0.103	0.4	0.16	1.12	42%
1	win s 89 fixed	125	90	East	0.858	1.735	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	0.036	1	0.024	1.5	1.01	0.71	68%
1	win s 90 sash	125	90	East	0.416	1.735	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	0.036	1	0.023	0.7	0.21	0.87	29%
1	win s 84 sash	125	90	East	0.416	1.735	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	0.036	1	0.023	0.7	0.21	0.87	29%
1	win s 83 fixed	125	90	East	0.858	1.735	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	0.036	1	0.024	1.5	1.01	0.71	68%
1	win n 114 sash	305	90	West	0.971	0.500	10-New Walls NW (with Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	0.038	1	0.026	0.5	0.16	0.93	33%
1	win n 120 sash	305	90	West	0.971	0.500	10-New Walls NW (with Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	0.038	1	0.026	0.5	0.16	0.93	33%
1	win n 113 fixed	305	90	West	0.857	1.735	10-New Walls NW (with Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	0.038	1	0.024	1.5	1.01	0.71	68%
1	win n 112 sash	305	90	West	0.416	1.735	10-New Walls NW (with Louvers)	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	0.038	1	0.023	0.7	0.21	0.87	29%
1	win n 118 sash	305	90	West	0.416	1.735	10-New Walls NW (with Louvers)	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	0.038	1	0.023	0.7	0.21	0.87	29%

Heating degree hours [kKh/ **67.9**

					Window rough openings		Installed in	Glazing	Frame	g-Value	U-Value		Ψ Glazing edge	Installation situation user determined value for $\Psi_{installation}$ or '1': $\Psi_{installation}$ from 'Components' worksheet '0': in the case of abutting windows					Results			
Quan-tity	Description	Deviation from north	Angle of inclination from the horizontal	Orien- tation	Width	Height	Selection from 'Areas' worksheet	Selection from 'Components' worksheet	Selection from 'Components' worksheet	Perpen-dicular radiation	Glazing	Frames (avg.)	$\Psi_{Glazing\ edge}$ (Avg.)	left	right	bottom	top	$\Psi_{Installation}$ (Avg.)	Window Area	Glazing area	U_w installed	Glazed fraction per window
		°	°		m	m		Sort: AS LIST	Sort: AS LIST	-	W/(m²K)	W/(m²K)	W/(mK)	W/(mK) or 1/0				W/(mK)	m²	m²	W/(m²K)	%
1	win n 119 fixed	305	90	West	0.857	1.735	10-New Walls NW (with Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	0.038	1	0.024	1.5	1.01	0.71	68%
1	win n 19 sash	305	90	West	0.875	0.665	4-Existing Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win n 20 sash	305	90	West	0.875	0.665	4-Existing Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win n 61 sash	305	90	West	0.875	0.665	4-Existing Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win n 60 sash	305	90	West	0.875	0.665	4-Existing Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win n 22 fixed	305	90	West	0.797	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	1.4	0.95	0.71	67%
1	win n 63 fixed	305	90	West	0.803	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	1.4	0.96	0.71	67%
1	win n 62 sash	305	90	West	0.417	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	0.7	0.22	0.86	30%
1	win n 21 sash	305	90	West	0.423	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	0.8	0.23	0.85	30%
1	win n 58 sash	305	90	West	0.417	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	0.7	0.22	0.86	30%
1	win n 17 sash	305	90	West	0.416	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	0	1	0.020	0.7	0.22	0.85	29%
1	win n 18 fixed	305	90	West	0.804	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	0	1	0.020	1.4	0.96	0.70	67%
1	win n 59 fixed	305	90	West	0.803	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	1.4	0.96	0.71	67%
1	win n 16 fixed	305	90	West	1.220	0.563	4-Existing Wall NW	02ud VitroTerm glass	10ud fixed Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	0	0.020	0.7	0.37	0.79	54%
1	win s 54 sash	125	90	East	0.875	0.665	3-Existing Wall SE	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win s 15 sash	125	90	East	0.875	0.665	3-Existing Wall SE	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win s 14 sash	125	90	East	0.875	0.665	3-Existing Wall SE	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win s 53 sash	125	90	East	0.875	0.665	3-Existing Wall SE	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win s 52 sash	125	90	East	0.420	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.23	0.86	30%
1	win s 12 fixed	125	90	East	0.802	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	1.4	0.96	0.71	67%
1	win s 13 sash	125	90	East	0.418	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.22	0.86	30%
1	win s 51 fixed	125	90	East	0.800	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	1.4	0.96	0.71	67%
1	win s 55 fixed	125	90	East	0.800	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	1.4	0.96	0.71	67%
1	win s 17 sash	125	90	East	0.418	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.22	0.86	30%
1	win s 56 sash	125	90	East	0.420	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.23	0.86	30%
1	win s 16 sash	125	90	East	0.802	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	1.4	0.96	0.71	67%
1	win n 67 sash	305	90	West	0.875	0.665	4-Existing Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win n 68 sash	305	90	West	0.875	0.665	4-Existing Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win n 28 sash	305	90	West	0.875	0.665	4-Existing Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win n 27 sash	305	90	West	0.875	0.665	4-Existing Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win n 70 fixed	305	90	West	0.803	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	1.4	0.96	0.71	67%
1	win n 30 fixed	305	90	West	0.797	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	1.4	0.95	0.71	67%
1	win n 69 sash	305	90	West	0.417	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	0.7	0.22	0.86	30%
1	win n 29 sash	305	90	West	0.423	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	0.8	0.23	0.85	30%
1	win n 24 fixed	305	90	West	0.000	0.000	4-Existing Wall NW	02ud VitroTerm glass	10ud fixed Pozbud frame	0.45	0.50	0.73	0.027	1	1	1	0	0.000				
1	win n 25 sash	305	90	West	0.416	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	0	1	0.020	0.7	0.22	0.85	29%
1	win n 26 fixed	305	90	West	0.804	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	0	1	0.020	1.4	0.96	0.70	67%
1	win n 66 fixed	305	90	West	0.803	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	1.4	0.96	0.71	67%
1	win n 65 sash	305	90	West	0.417	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	0.7	0.22	0.86	30%
1	win s 60 sash	125	90	East	0.875	0.665	3-Existing Wall SE	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win s 61 sash	125	90	East	0.875	0.665	3-Existing Wall SE	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win s 23 sash	125	90	East	0.875	0.665	3-Existing Wall SE	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win s 22 sash	125	90	East	0.875	0.665	3-Existing Wall SE	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win s 21	125	90	East	0.418	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.22	0.86	30%
1	win s 20 fixed	125	90	East	0.802	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	1.4	0.96	0.71	67%
1	win s 59 sash	125	90	East	0.420	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.23	0.86	30%
1	win s 58 fixed	125	90	East	0.800	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	1.4	0.96	0.71	67%
1	win s 24 fixed	125	90	East	0.802	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	1.4	0.96	0.71	67%
1	win s 63 sash	125	90	East	0.420	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.23	0.86	30%
1	win s 62 fixed	125	90	East	0.800	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	1.4	0.96	0.71	67%
1	win s 25 sash	125	90	East	0.418	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	0.8	0.22	0.86	30%
1	win n 53 sash	305	90	West	0.875	0.665	4-Existing Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win n 54 sash	305	90	West	0.875	0.665	4-Existing Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win n 12 sash	305	90	West	0.875	0.665	4-Existing Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win n 11 sash	305	90	West	0.875	0.665	4-Existing Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win n 10 fixed	305	90	West	0.804	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	0	1	0.020	1.4	0.96	0.70	67%
1	win n 9 sash	305	90	West	0.416	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	0	1	0.020	0.7	0.22	0.85	29%
1	win n 8 fixed	305	90	West	1.220	0.563	4-Existing Wall NW	02ud VitroTerm glass	10ud fixed Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	0	0.020	0.7	0.37	0.79	54%
1	win n 56 fixed	305	90	West	0.803	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	1.4	0.96	0.71	67%
1	win n 55 sash	305	90	West	0.417	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	0.7	0.22	0.86	30%
1	win n 14 fixed	305	90	West	0.797	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	1.4	0.95	0.71	67%
1	win n 13 sash	305	90	West	0.423	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	0.8	0.23	0.85	30%
1	win n 52 fixed	305	90	West	0.803	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	1.4	0.96	0.71	67%
1	win n 51 sash	305	90	West	0.417	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	0.7	0.22	0.86	30%
1	d n 1	305	90	West	1.079	2.234	11-New Walls NW (no Louvers)	04ud Pilkington door glass	12ud door Reynaers frame	0.56	0.80	1.20	0.031	1	1	0.036	1	0.331	2.4	1.54	1.92	64%

Heating degree hours [kKh/ **67.9**

					Window rough openings		Installed in	Glazing	Frame	g-Value	U-Value		Ψ Glazing edge	Installation situation user determined value for $\Psi_{installation}$ or '1': $\Psi_{installation}$ from 'Components' worksheet '0': in the case of abutting windows					Results			
Quan-tity	Description	Deviation from north	Angle of inclination from the horizontal	Orien- tation	Width	Height	Selection from 'Areas' worksheet	Selection from 'Components' worksheet	Selection from 'Components' worksheet	Perpen-dicular radiation	Glazing	Frames (avg.)	$\Psi_{Glazing\ edge}$ (Avg.)	left	right	bottom	top	$\Psi_{Installation}$ (Avg.)	Window Area	Glazing area	U_w installed	Glazed fraction per window
		°	°		m	m		Sort: AS LIST	Sort: AS LIST	-	W/(m²K)	W/(m²K)	W/(mK)	W/(mK) or 1/0				W/(mK)	m²	m²	W/(m²K)	%
1	win s 72 fixed	305	90	West	1.079	2.390	11-New Walls NW (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.036	1	0.022	2.6	1.93	0.69	75%
1	win s 72 fixed	305	90	West	1.079	2.200	11-New Walls NW (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.036	1	0.023	2.4	1.76	0.69	74%
1	win s 123 fixed	125	90	East	1.055	2.393	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.036	1	0.022	2.5	1.88	0.69	74%
1	win s 78 fixed	125	90	East	1.055	2.400	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.036	1	0.022	2.5	1.88	0.69	74%
1	win s 39 Door	125	90	East	1.055	2.410	16-New Walls SE (no Louvers)	04ud Pilkington door glass	12ud door Reynaers frame	0.56	0.80	1.20	0.031	1	1	0.036	1	0.334	2.5	1.63	1.93	64%
1	win n 48 fixed	305	90	West	0.786	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	1.4	0.93	0.71	66%
1	win n 47 sash	305	90	West	0.420	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	0.8	0.23	0.86	30%
1	win n 46 sash	305	90	West	0.875	0.665	4-Existing Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	1	1	0.020	0.6	0.24	0.85	41%
1	win n 45 fixed	305	90	West	0.798	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	1	1	0.020	1.4	0.95	0.71	67%
1	win n 2 fixed	305	90	West	2.326	2.185	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.75	0.027	0	1	1	1	0.020	5.1	4.22	0.61	83%
1	win n 4 fixed	305	90	West	2.322	2.185	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.75	0.027	0	1	1	1	0.020	5.1	4.21	0.61	83%
1	win n 5 fixed	305	90	West	1.493	2.185	4-Existing Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	1	1	1	0.020	3.3	2.57	0.65	79%
1	win n 3 sash	305	90	West	0.423	2.185	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	0.9	0.29	0.85	31%
1	win n 1 sash	305	90	West	0.419	2.185	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	0.9	0.28	0.85	31%
1	win n 44	305	90	West	0.422	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	1	1	0.020	0.8	0.23	0.85	30%
1	win s 95 sash	125	90	East	0.673	1.360	16-New Walls SE (no Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.036	1	0.023	0.9	0.44	0.81	48%
1	win s 96 sash	125	90	East	0.971	0.500	16-New Walls SE (no Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	0.036	1	0.025	0.5	0.16	0.93	33%
1	win s 92 fixed	125	90	East	1.391	2.200	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0.067	0	0.067	0.067	0.067	3.1	2.38	0.72	78%
1	win s 94 sash	125	90	East	0.432	1.301	16-New Walls SE (no Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	0.067	0	0.067	0.067	0.6	0.16	0.99	29%
1	win s 93 fixed	125	90	East	0.432	0.899	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	0.067	0.067	0	0.067	0.4	0.16	1.00	42%
1	win s 97 fixed	125	90	East	0.858	1.735	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	0.036	1	0.024	1.5	1.01	0.71	68%
1	win s 98 sash	125	90	East	0.416	1.735	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	0.036	1	0.023	0.7	0.21	0.87	29%
1	win s 104 sash	125	90	East	0.971	0.500	16-New Walls SE (no Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	0.036	1	0.025	0.5	0.16	0.93	33%
1	win s 103 sash	125	90	East	0.673	1.360	16-New Walls SE (no Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.036	1	0.023	0.9	0.44	0.81	48%
1	win s 100 fixed	125	90	East	1.391	2.200	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0.067	0	0.067	0.067	0.067	3.1	2.38	0.72	78%
1	win s 102 fixed	125	90	East	0.432	1.301	16-New Walls SE (no Louvers)	02ud VitroTerm glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	0.067	0	0.067	0.067	0.6	0.26	0.96	45%
1	win s 101 fixed	125	90	East	0.432	0.899	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	0.067	0.067	0	0.067	0.4	0.16	1.00	42%
1	win s 105 fixed	125	90	East	0.851	1.735	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	0	0.036	1	0.024	1.5	1.00	0.71	68%
1	win s 106 sash	125	90	East	0.422	1.735	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	0	1	0.036	1	0.023	0.7	0.22	0.86	30%
1	win n 107 sash	305	90	West	0.673	1.360	10-New Walls NW (with Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.038	1	0.023	0.9	0.44	0.82	48%
1	win n 106 sash	305	90	West	0.971	0.500	10-New Walls NW (with Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	0.038	1	0.026	0.5	0.16	0.93	33%
1	win n 104 sash	305	90	West	0.416	1.735	10-New Walls NW (with Louvers)	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	0.038	1	0.023	0.7	0.21	0.87	29%
1	win n 105 fixed	305	90	West	0.857	1.735	10-New Walls NW (with Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	0.038	1	0.024	1.5	1.01	0.71	68%
1	win n 99 sash	305	90	West	0.673	1.360	10-New Walls NW (with Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.038	1	0.023	0.9	0.44	0.82	48%
1	win n 98 sash	305	90	West	0.971	0.500	10-New Walls NW (with Louvers)	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.75	0.027	1	1	0.038	1	0.026	0.5	0.16	0.93	33%
1	win n 97 fixed	305	90	West	0.857	1.735	10-New Walls NW (with Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	0.038	1	0.024	1.5	1.01	0.71	68%
1	win n 96 sash	305	90	West	0.416	1.735	10-New Walls NW (with Louvers)	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	0.038	1	0.023	0.7	0.21	0.87	29%
1	win e 5 sash	35	90	North	0.416	2.120	15-New Walls N (no Louvers)	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	0.036	1	0.022	0.9	0.27	0.86	30%
1	win e 6 fixed	35	90	North	1.004	2.120	15-New Walls N (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	1	0.036	1	0.024	2.1	1.54	0.68	73%
1	win e 3 fixed	35	90	North	1.100	1.838	15-New Walls N (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.036	1	0.023	2.0	1.47	0.70	73%
1	win e 1 fixed	35	90	North	1.100	1.838	15-New Walls N (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.036	1	0.023	2.0	1.47	0.70	73%
1	d n 2	305	90	West	1.155	2.205	4-Existing Wall NW	04ud Pilkington door glass	12ud door Reynaers frame	0.56	0.80	1.20	0.031	1	1	1	1	0.407	2.5	1.67	2.08	66%
0	win w 7 fixed	215	90	South	1.100	1.835	5-Existing Wall SW	02ud VitroTerm glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	1	1	1	0.020				
1	win w 11 fixed	215	90	South	1.100	1.795	14-New Walls SW (no Louvers)	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.036	1	0.023	2.0	1.44	0.70	73%

Heating degree hours [kKh/ 67.9

					Window rough openings		Installed in	Glazing	Frame	g-Value	U-Value		Ψ Glazing edge	Installation situation user determined value for $\Psi_{installation}$ or '1': $\Psi_{installation}$ from 'Components' worksheet '0': in the case of abutting windows					Results			
Quan-tity	Description	Deviation from north	Angle of inclination from the horizontal	Orien- tation	Width	Height	Selection from 'Areas' worksheet	Selection from 'Components' worksheet	Selection from 'Components' worksheet	Perpen-dicular radiation	Glazing	Frames (avg.)	$\Psi_{Glazing\ edge}$ (Avg.)	left	right	bottom	top	$\Psi_{Installation}$ (Avg.)	Window Area	Glazing area	U_w installed	Glazed fraction per window
		°	°		m	m		Sort: AS LIST	Sort: AS LIST	-	W/(m²K)	W/(m²K)	W/(mK)	W/(mK) or 1/0				W/(mK)	m²	m²	W/(m²K)	%
0	win w 3 fixed	215	90	South	1.208	2.335	19-New Entrance wall SW	05ud CW Glass	08ud Curtain Wall Schuco	0.60	0.70	1.10	0.042	0	1	0.036	1	0.039				
0	win w 2 fixed	215	90	South	1.209	2.360	19-New Entrance wall SW	05ud CW Glass	08ud Curtain Wall Schuco	0.60	0.70	1.10	0.042	0	0	0.036	1	0.038				
0	win w 1 fixed	215	90	South	1.209	2.360	19-New Entrance wall SW	05ud CW Glass	08ud Curtain Wall Schuco	0.60	0.70	1.10	0.042	1	0	0.036	1	0.039				
0	win w 6 fixed	215	90	South	1.198	2.375	19-New Entrance wall SW	05ud CW Glass	08ud Curtain Wall Schuco	0.60	0.70	1.10	0.042	0	1	0.036	1	0.039				
0	win w 5 fixed	215	90	South	1.220	2.375	19-New Entrance wall SW	05ud CW Glass	08ud Curtain Wall Schuco	0.60	0.70	1.10	0.042	0	0	0.036	1	0.038				
0	win w 4 fixed	215	90	South	1.208	2.375	19-New Entrance wall SW	05ud CW Glass	08ud Curtain Wall Schuco	0.60	0.70	1.10	0.042	1	0	0.036	1	0.039				
0	win w 10 fixed	215	90	South	1.207	2.400	19-New Entrance wall SW	05ud CW Glass	08ud Curtain Wall Schuco	0.60	0.70	1.10	0.042	0	1	0.036	1	0.039				
0	win w 9 fixed	215	90	South	1.219	2.400	19-New Entrance wall SW	05ud CW Glass	08ud Curtain Wall Schuco	0.60	0.70	1.10	0.042	0	0	0.036	1	0.038				
0	win w 8 fixed	215	90	South	1.210	2.375	19-New Entrance wall SW	05ud CW Glass	08ud Curtain Wall Schuco	0.60	0.70	1.10	0.042	1	0	0.036	1	0.039				
0	win n 86 fixed	305	90	West	0.911	2.365	18-New Entrance wall NW	05ud CW Glass	08ud Curtain Wall Schuco	0.60	0.70	1.10	0.042	1	0	0.036	1	0.039				
0	win n 87 fixed	305	90	West	1.147	2.365	18-New Entrance wall NW	05ud CW Glass	08ud Curtain Wall Schuco	0.60	0.70	1.10	0.042	0	1	0.036	1	0.039				
0	win n 50 fixed	305	90	West	1.141	2.372	18-New Entrance wall NW	05ud CW Glass	08ud Curtain Wall Schuco	0.60	0.70	1.10	0.042	0	1	0.036	1	0.039				
0	win n 49 fixed	305	90	West	0.916	2.372	18-New Entrance wall NW	05ud CW Glass	08ud Curtain Wall Schuco	0.60	0.70	1.10	0.042	1	0	0.036	1	0.039				
0	win n 6 fixed	305	90	West	0.916	2.375	18-New Entrance wall NW	05ud CW Glass	08ud Curtain Wall Schuco	0.60	0.70	1.10	0.042	1	0	0.036	1	0.039				
0	Schucco Door	305	90	West	1.151	2.375	18-New Entrance wall NW	05ud CW Glass	06ud Door Schuco	0.60	0.70	1.79	0.042	0	1	0.036	1	0.039				
1	win n 103 fixed	305	90	West	1.137	1.735	11-New Walls NW (no Louvers)	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.036	1	0.023	2.0	1.27	0.72	64%
1	win s 99 fixed	125	90	East	1.136	1.749	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.036	1	0.023	2.0	1.28	0.72	64%
1	win n 111 fixed	305	90	West	1.136	1.735	11-New Walls NW (no Louvers)	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.036	1	0.023	2.0	1.26	0.72	64%
1	win n 95 fixed	305	90	West	1.121	1.735	11-New Walls NW (no Louvers)	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.036	1	0.023	1.9	1.24	0.72	64%
1	win s 91 fixed	125	90	East	1.135	1.795	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.036	1	0.023	2.0	1.31	0.72	65%
1	win s 107 fixed	125	90	East	1.126	1.795	16-New Walls SE (no Louvers)	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	0.036	1	0.023	2.0	1.30	0.72	64%
1	win s 57 fixed	125	90	East	1.136	1.749	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	1	1	0.020	2.0	1.28	0.71	64%
1	win s 19 fixed	125	90	East	1.136	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	1	1	0.020	2.0	1.32	0.71	65%
1	win n 23 fixed	305	90	West	1.137	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	1	1	0.020	2.0	1.32	0.71	65%
1	win n 64 sash	305	90	West	1.137	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	1	1	0.020	2.0	1.32	0.71	65%
1	win s 11 fixed	125	90	East	1.135	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	1	1	0.020	2.0	1.31	0.71	65%
1	win s 50 fixed	125	90	East	1.135	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	1	1	0.020	2.0	1.31	0.71	65%
1	win n 71 fixed	305	90	West	1.135	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	1	1	0.020	2.0	1.31	0.71	65%
1	win n 31 fixed	305	90	West	1.135	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	1	1	0.020	2.0	1.31	0.71	65%
1	win s 64 fixed	125	90	East	1.126	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	1	1	0.020	2.0	1.30	0.71	64%
1	win s 26 fixed	125	90	East	1.126	1.795	3-Existing Wall SE	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	1	1	0.020	2.0	1.30	0.71	64%
1	win n 57 fixed	305	90	West	1.121	1.795	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	1	1	0.020	2.0	1.29	0.71	64%
1	win n 15 fixed	305	90	West	1.121	1.835	4-Existing Wall NW	07ud VitroTerm Temperate glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	1	1	1	0.020	2.1	1.33	0.71	65%
1	win n 116 sash	305	90	West	0.429	1.300	12-New Bay Window Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	0	1	0.020	0.6	0.16	0.85	29%
1	win n 117 fixed	305	90	West	1.395	2.200	12-New Bay Window Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	0.067	0.067	0.067	0.067	3.1	2.39	0.72	78%
1	win n 115 fixed	305	90	West	0.429	0.900	12-New Bay Window Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0.067	0	0.067	0	0.067	0.4	0.16	1.00	42%
1	win n 122 sash	305	90	West	0.429	1.300	12-New Bay Window Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	0	1	0.020	0.6	0.16	0.85	29%
1	win n 123 fixed	305	90	West	1.395	2.200	12-New Bay Window Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	0.067	0.067	0.067	0.067	3.1	2.39	0.72	78%
1	win n 121 fixed	305	90	West	0.429	0.900	12-New Bay Window Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0.067	0	0.067	0	0.067	0.4	0.16	1.00	42%
1	win n 101 sash	305	90	West	0.429	1.300	12-New Bay Window Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	0	1	0.020	0.6	0.16	0.85	29%
1	win n 102 fixed	305	90	West	1.395	2.200	12-New Bay Window Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	0.067	0.067	0.067	0.067	3.1	2.39	0.72	78%
1	win n 100 fixed	305	90	West	0.429	0.900	12-New Bay Window Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0.067	0	0.067	0	0.067	0.4	0.16	1.00	42%
1	win n 92 fixed	305	90	West	0.429	0.900	12-New Bay Window Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0.067	0	0.067	0	0.067	0.4	0.16	1.00	42%
1	win n 94 fixed	305	90	West	1.395	2.200	12-New Bay Window Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	0.067	0.067	0.067	0.067	3.1	2.39	0.72	78%
1	win n 93 sash	305	90	West	0.429	1.300	12-New Bay Window Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	0	1	0.020	0.6	0.16	0.85	29%
1	win n 108 fixed	305	90	West	0.429	0.900	12-New Bay Window Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0.067	0	0.067	0	0.067	0.4	0.16	1.00	42%
1	win n 110 fixed	305	90	West	1.395	2.200	12-New Bay Window Wall NW	07ud VitroTerm Temperate glass	10ud fixed Pozbud frame	0.45	0.50	0.74	0.027	0	0.067	0.067	0.067	0.067	3.1	2.39	0.72	78%
1	win n 109 sash	305	90	West	0.429	1.300	12-New Bay Window Wall NW	02ud VitroTerm glass	11ud sash Pozbud frame	0.45	0.50	0.74	0.027	1	0	0	1	0.020	0.6	0.16	0.85	29%
0	win e 7 fixed	35	90	North	1.000	2.425	20-New Entrance Wall NE	05ud CW Glass	08ud Curtain Wall Schuco	0.60	0.70	1.10	0.042	1	1	0.036	1	0.039				
0	win e 4 fixed	35	90	North	1.000	2.425	20-New Entrance Wall NE	05ud CW Glass	08ud Curtain Wall Schuco	0.60	0.70	1.10	0.042	1	1	0.036	1	0.039				
0	win e 2 fixed	35	90	North	1.000	2.373	20-New Entrance Wall NE	05ud CW Glass	08ud Curtain Wall Schuco	0.60	0.70	1.10	0.042	1	1	0.036	1	0.039				
1	lobby doors GF	305	90	West	1.100	2.100	4-Existing Wall NW	12ud Double door to lobby	25ud Double door Reynaers frame	0.52	1.60	1.90	0.031	1	0	1	1	0.417	2.3	1.48	2.55	64%

Heating degree hours [kKh/ 67.9

					Window rough openings		Installed in	Glazing	Frame	g-Value	U-Value		Ψ Glazing edge	Installation situation user determined value for $\Psi_{installation}$ or '1': $\Psi_{installation}$ from 'Components' worksheet '0': in the case of abutting windows					Results			
Quan-tity	Description	Deviation from north	Angle of inclination from the horizontal	Orien- tation	Width	Height	Selection from 'Areas' worksheet	Selection from 'Components' worksheet	Selection from 'Components' worksheet	Perpen-dicular radiation	Glazing	Frames (avg.)	$\Psi_{Glazing\ edge}$ (Avg.)	left	right	bottom	top	$\Psi_{Installation}$ (Avg.)	Window Area	Glazing area	U_w installed	Glazed fraction per window
		°	°		m	m		Sort: AS LIST	Sort: AS LIST	-	W/(m²K)	W/(m²K)	W/(mK)	W/(mK) or 1/0				W/(mK)	m²	m²	W/(m²K)	%
1	Fire Escape D NW	35	90	North	1.155	2.205	6-Existing Wall NE	04ud Pilkington door glass	12ud door Reynaers frame	0.56	0.80	1.20	0.031	1	1	1	1	0.407	2.5	1.67	2.08	66%
1	lobby doors GF	305	90	West	1.100	2.100	4-Existing Wall NW	12ud Double door to lobby	25ud Double door Reynaers frame	0.52	1.60	1.90	0.031	0	1	1	1	0.417	2.3	1.48	2.55	64%
1	lobby doors FF	305	90	West	1.100	2.100	4-Existing Wall NW	12ud Double door to lobby	25ud Double door Reynaers frame	0.52	1.60	1.90	0.031	1	0	1	1	0.417	2.3	1.48	2.55	64%
1	lobby doors FF	305	90	West	1.100	2.100	4-Existing Wall NW	12ud Double door to lobby	25ud Double door Reynaers frame	0.52	1.60	1.90	0.031	0	1	1	1	0.417	2.3	1.48	2.55	64%
1	lobby doors SF	305	90	West	1.100	2.100	10-New Walls NW (with Louvers)	12ud Double door to lobby	25ud Double door Reynaers frame	0.52	1.60	1.90	0.031	1	0	1	1	0.417	2.3	1.48	2.55	64%
1	lobby doors SF	305	90	West	1.100	2.100	10-New Walls NW (with Louvers)	12ud Double door to lobby	25ud Double door Reynaers frame	0.52	1.60	1.90	0.031	0	1	1	1	0.417	2.3	1.48	2.55	64%