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CASE STUDY ZOLDER
RESULTS OF THE MEASURING CAMPAIGN 1986-1987

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IEA ANNEX XIV
CONDENSATION AND ENERGY

REPORT OA/B - T7 - 09/1987

PREFACE

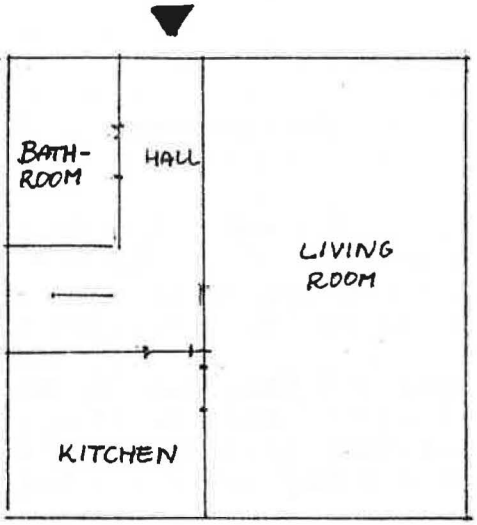
The report gives the first results of the measurement campaign 1986-1987. Additional calculations still must be performed and will be presented in following reports.
In these the general scheme of the first one will be maintained. At this moment new measurements, including an evaluation of of the first retrofitting measures are going on. These will be discussed in a next report under chapter 4: "Evaluation of Remedial measures".

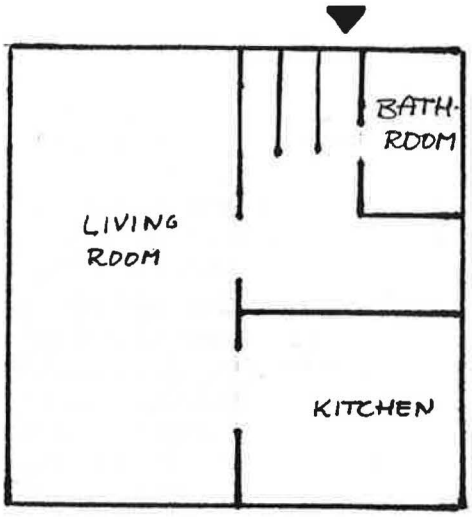
SUMMARY

TYPE 1

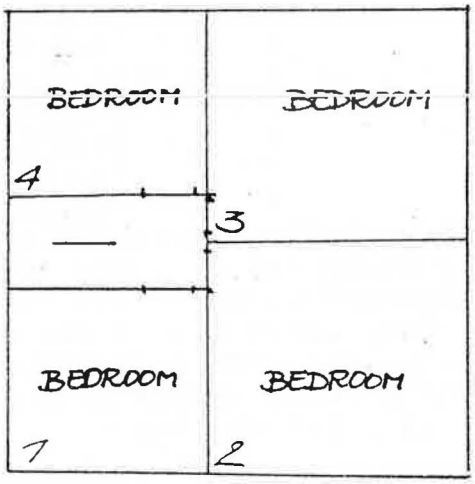
TYPE 2

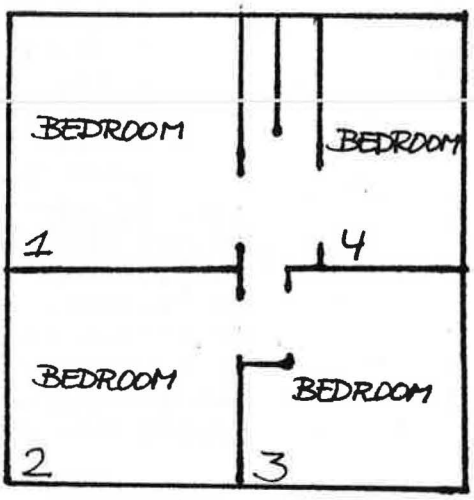
GROUND FLOOR



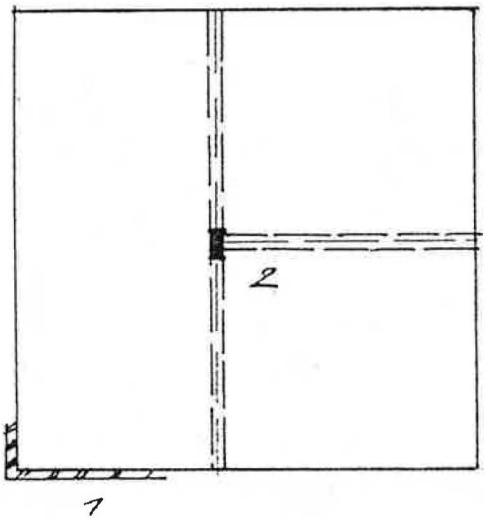


FIRST FLOOR





f.2 LAY-OUT



f.3
1. massive brickwork
2. concrete sceleton

1. OBSERVATIONS

1.1 THE BUILDING FABRIC

1.1.1 LAY-OUT (f.2)

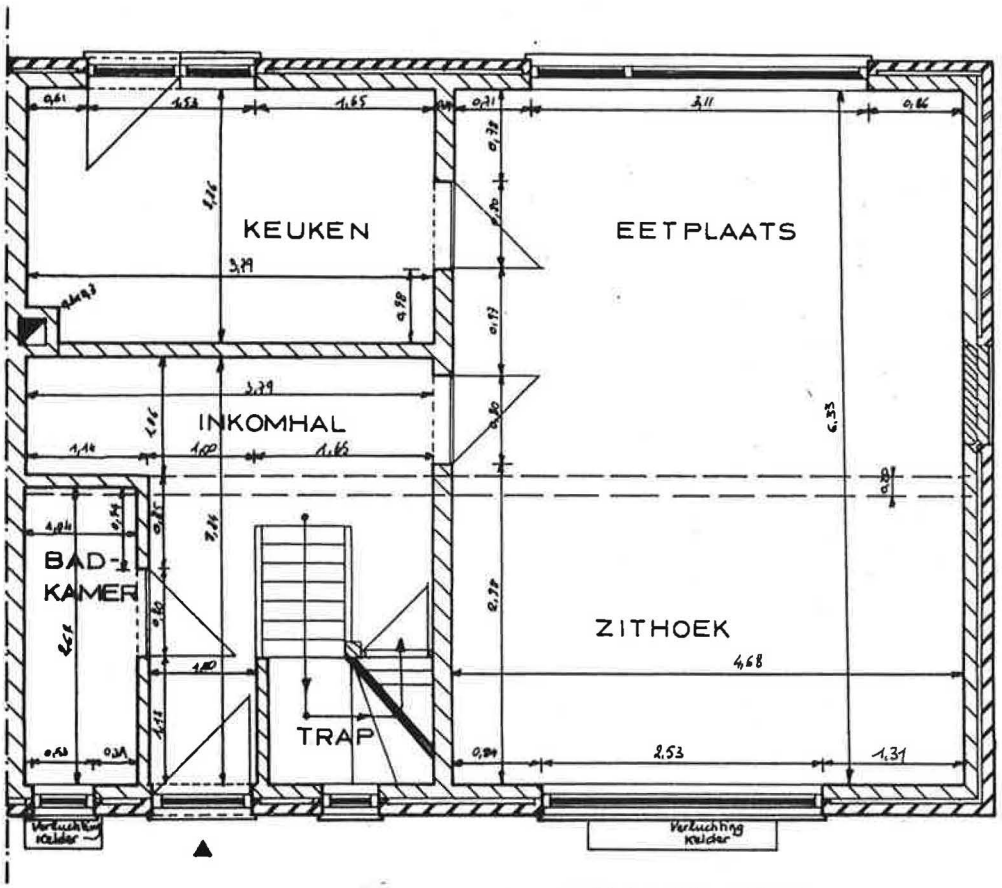
The estate consists of one storied houses. coupled in rows of two or more.
Originally they looked as follows

-1	basement
0	kitchen. living room, spare room. hall, toilet. bathroom
+1	4 sleeping rooms
+2	uninhabited loft space under a pitched roof

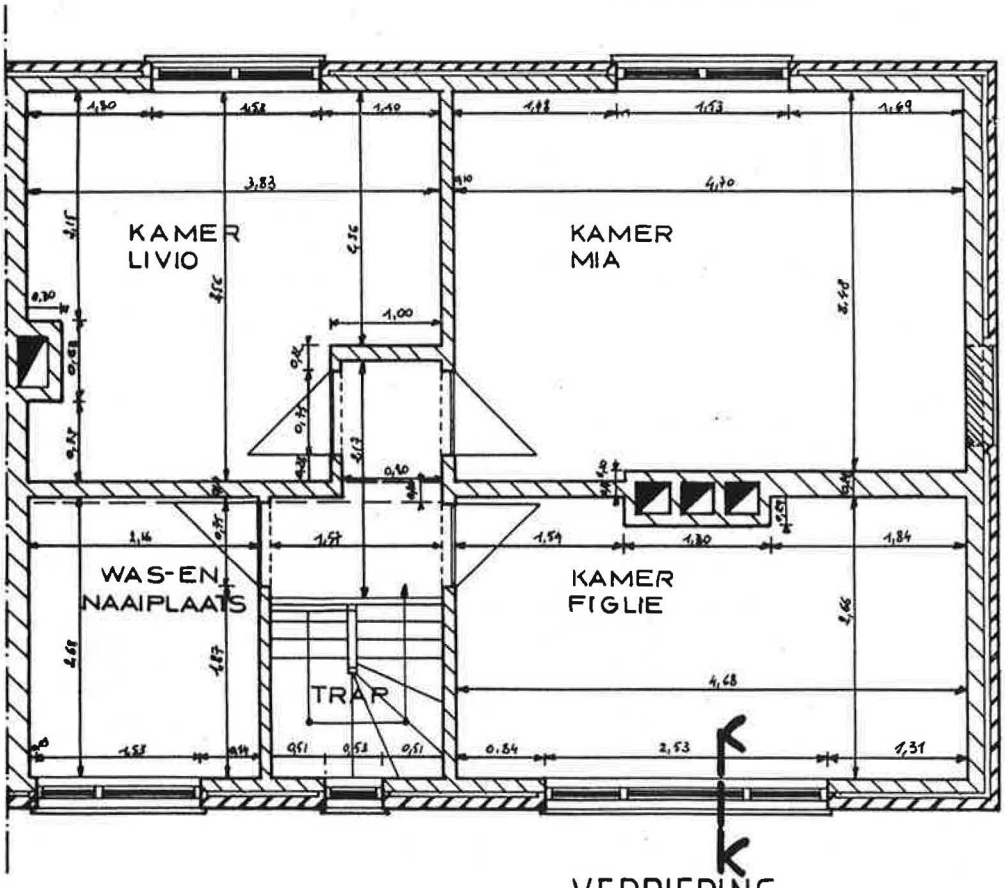
Following changes (important for the physical behaviour of the house) were carried out during the retrofitting campaign:

* The kitchen and the living room unified to one larger living room. Removal of the chimney
* The spare room became kitchen. (built-in kitchinette with exhaust fan)
* The bathroom modernised
* Instead of coal stoves a central gas fired heating system
* PVC window frames with double glass; later some double glazing replaced by single glazing in problem rooms
* PVC doors
* The windows of the side face bricked up
* The windows of the loft spaces removed
* The windows of the cellar replaced by glass blocks. (photo 10)

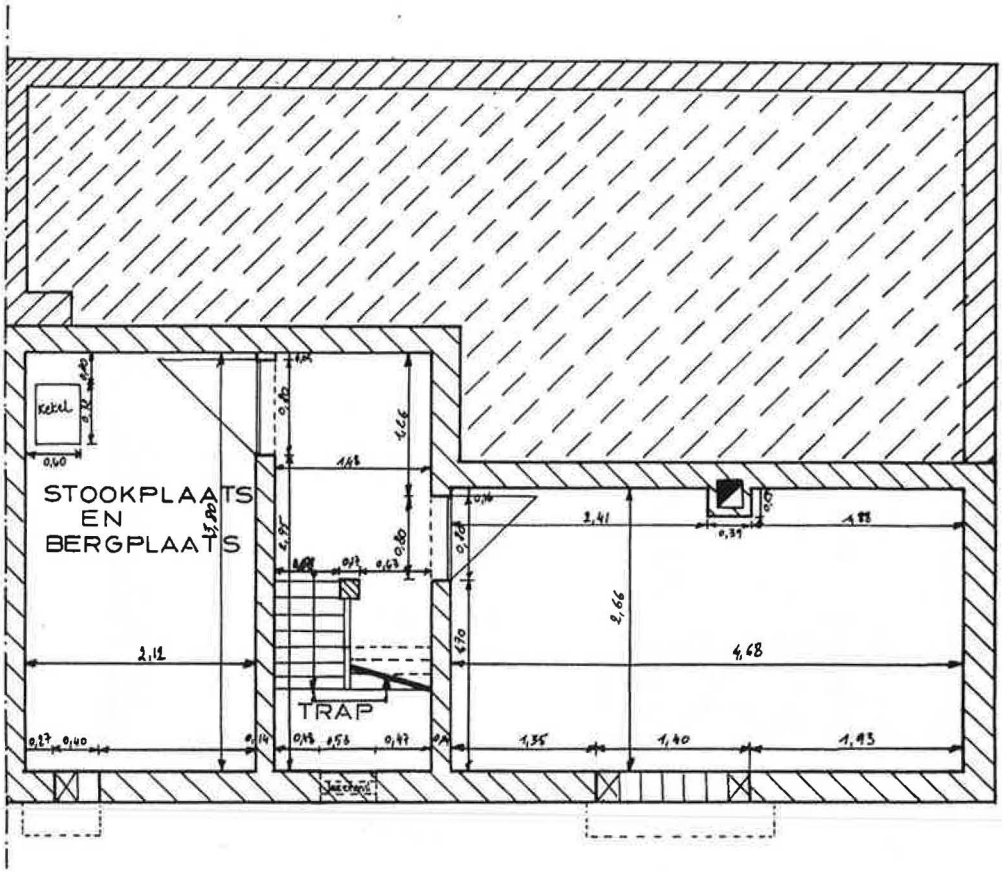
ARCHITECTURAL DRAWINGS



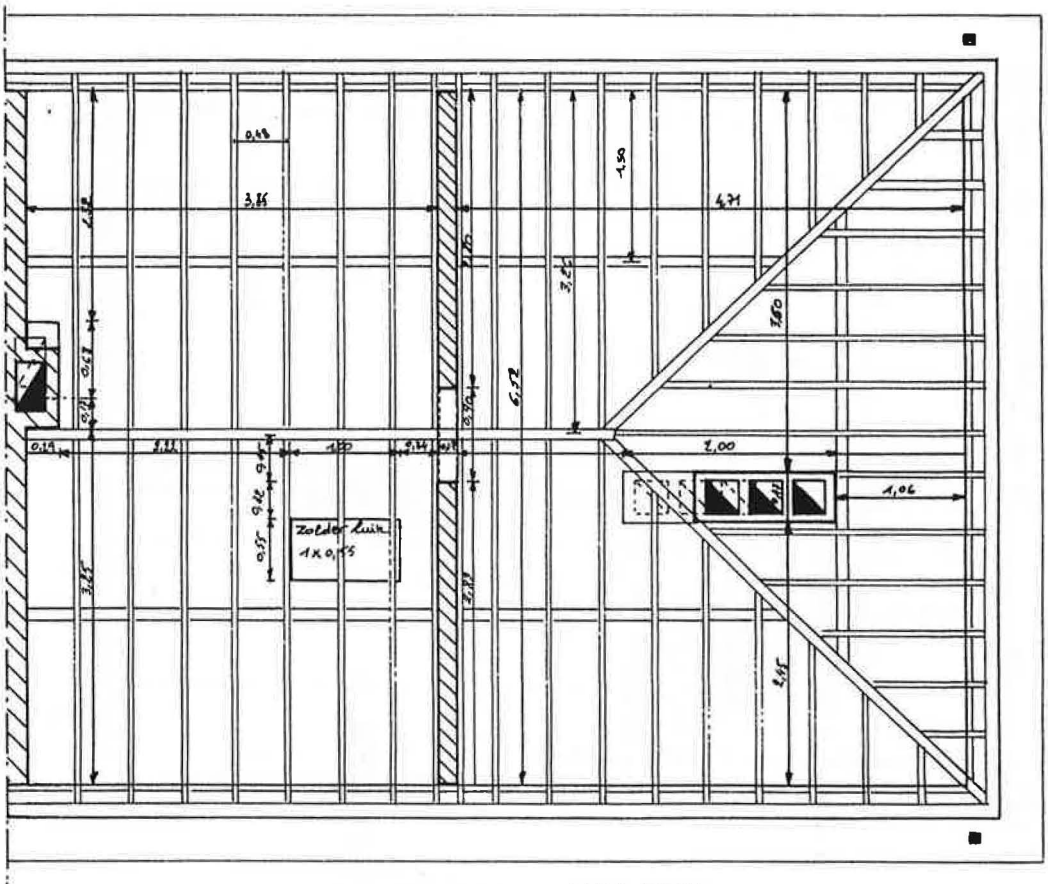
GELIJKVLOERS



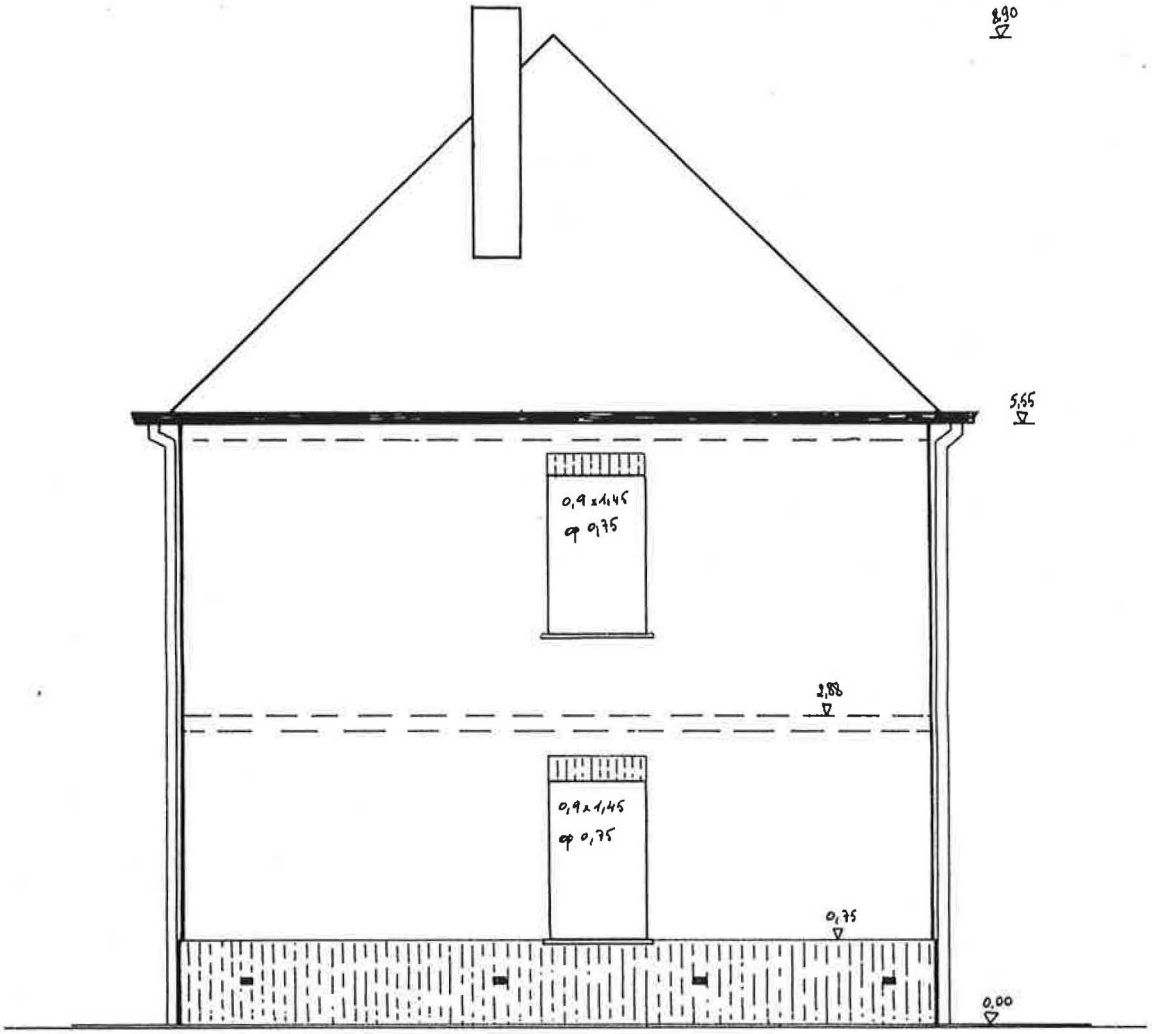
VERDIEPING



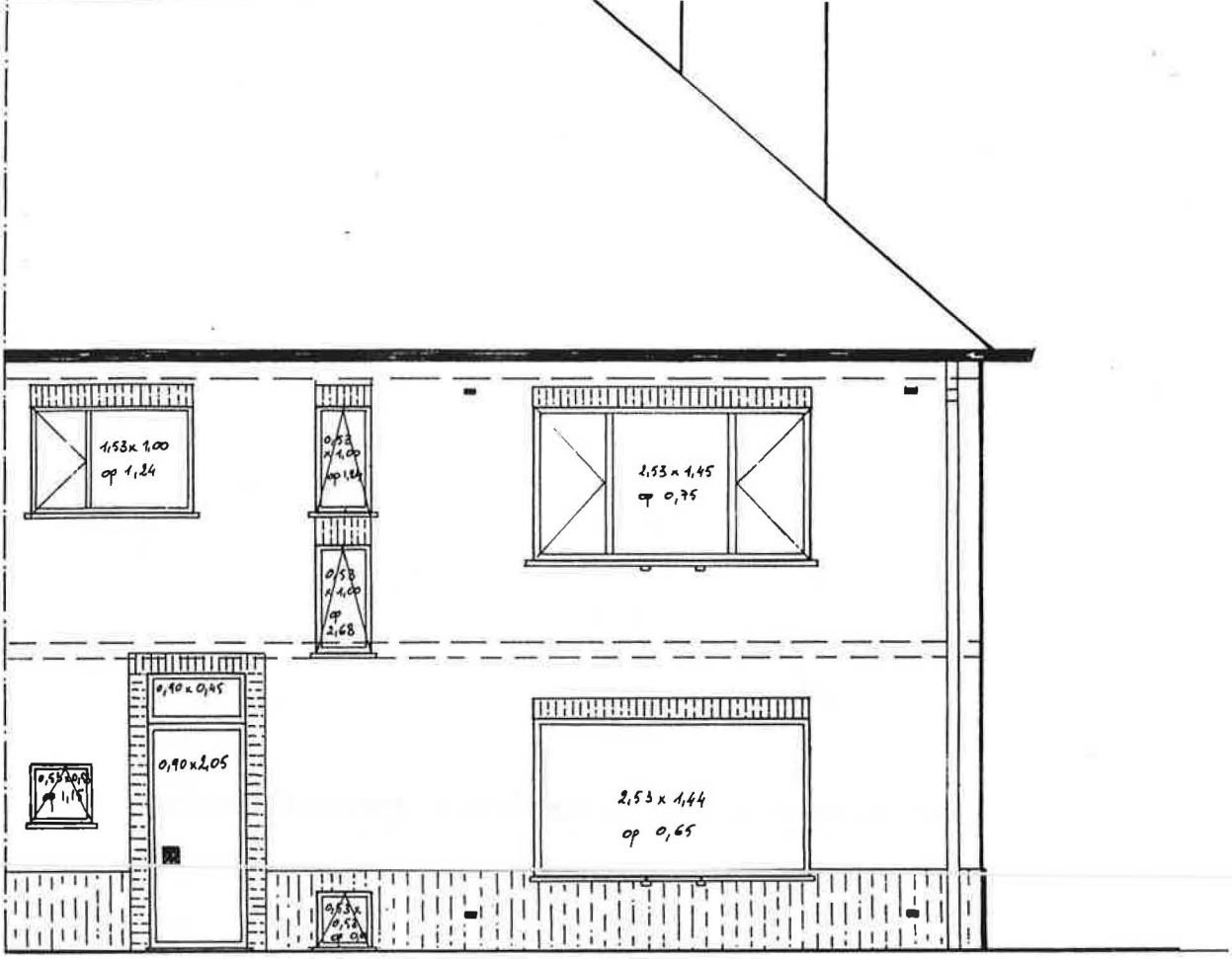
KELDER



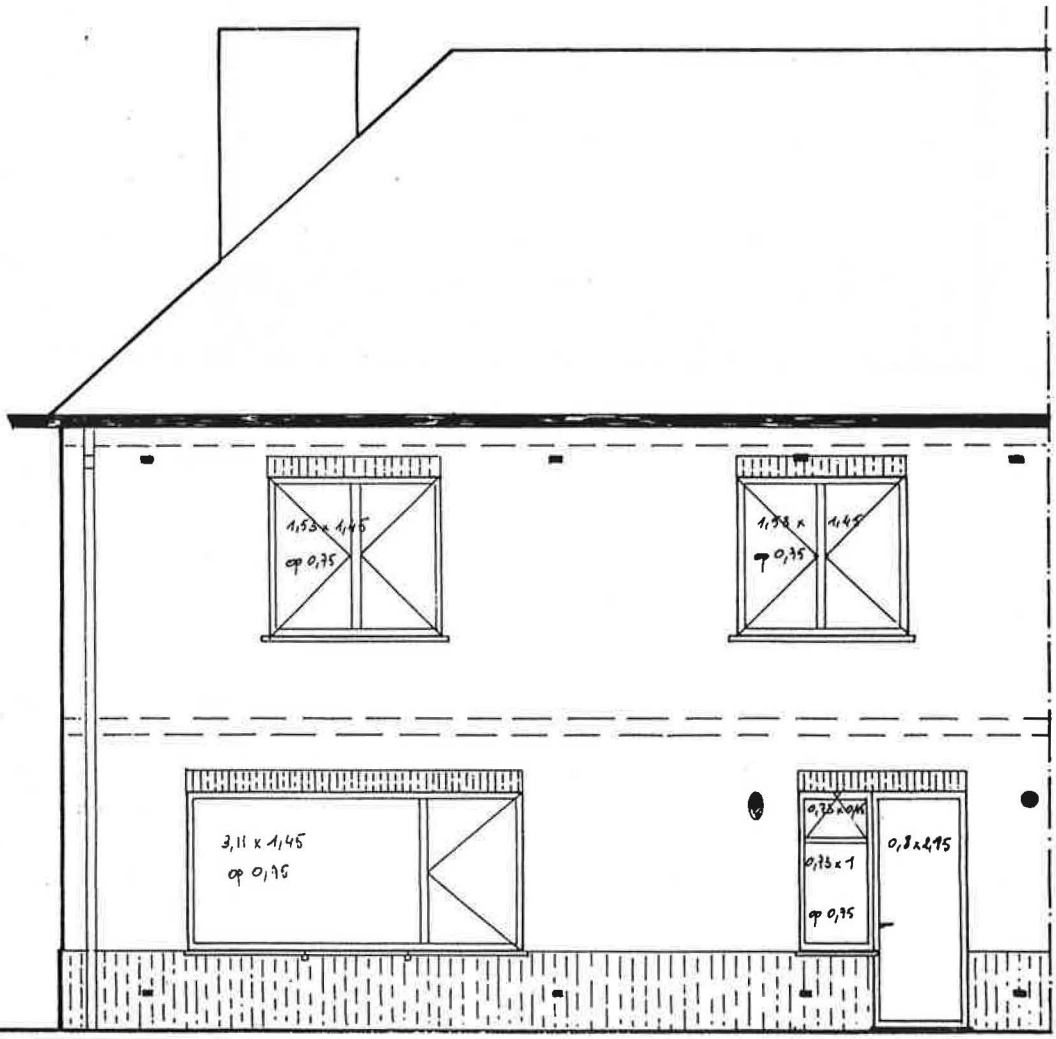
ZOLDER



ZIJGEVEL



GEVEL STRAAT



GEVEL TUIN

1.1.2 CONSTRUCTION PARTS

The construction of the houses is a mixture of a massive brickwork with a concrete skeleton (f.3).

A

A1 OUTSIDE WALLS : (f.4)
cavity walls: outer leaf 9cm brickwork
cavity of 5cm (but very irregular, see figure!!)
inner leaf 18cm brickwork
plaster
wallpaper

A2 FLOORS
loft floor :prestressed brickwork 9cm (f.5)

A3 ROOF : (f.5)
traditionally built pitched, tiled roof without insulation

A4 DOORS AND WINDOWS (f.6)
* before renovation: steel joinery, single glazing
* after renovation: PVC, stripped joinery with a high level of airtightness
types of windows:
. living room: front side: fixed
back side: fixed with side-wing opening
. kitchen: door + window, at the top: top hung window
. bathroom: top hung window (photo 5)
. hall: top hung window
. bedrooms: side -projected window (photo 9)

B. DETAILS

B1 rabbet (f.7)
B2 iron gitter for extra cavity ventilation
B3 the cavity is larger at the bottom -> 8cm! (f.8)
B4 a watertight layer at the bottom of the cavity in most cases missing

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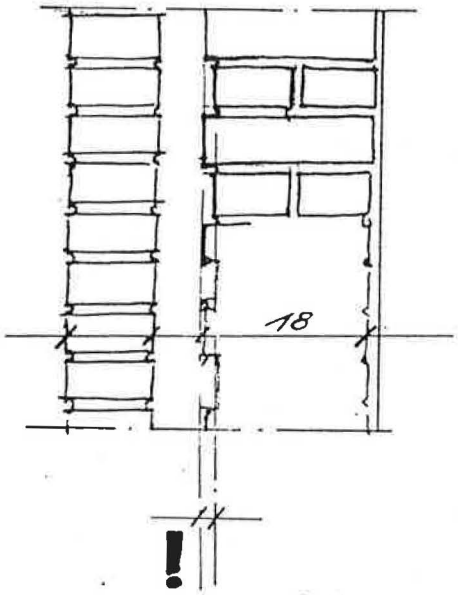
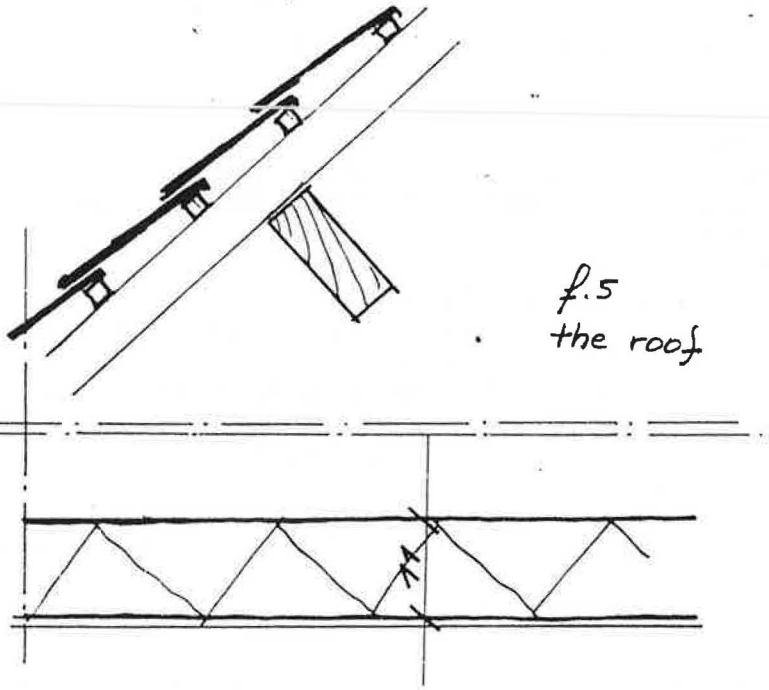
1.1.3 THE VENTILATION SYSTEM OR POSSIBILITIES

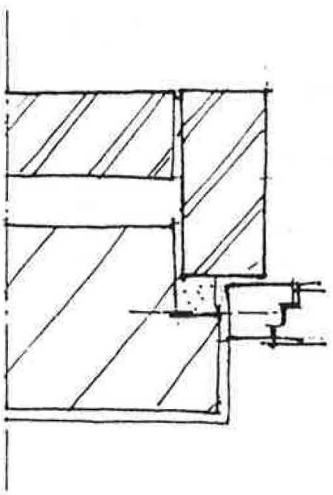
. No mechanical ventilation system, except exhaust fan in the kitchen.
. PVC stripped windows with a high level of airtightness.
. Absence of chimneys or ventilation ducts (except the gas fired boiler chimney).

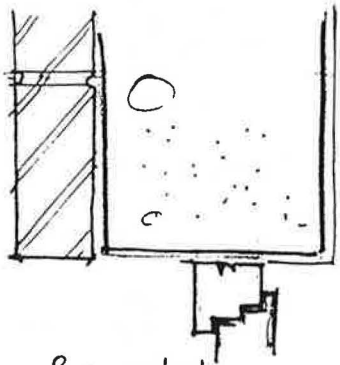


f.4
cavity wall



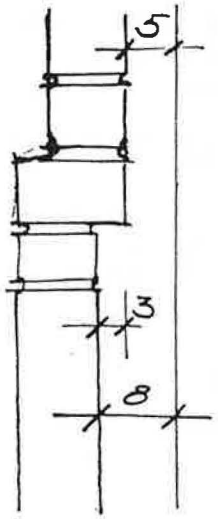
f.5
the roof





f. rabet

f. bottom part of the cavity wall



f6

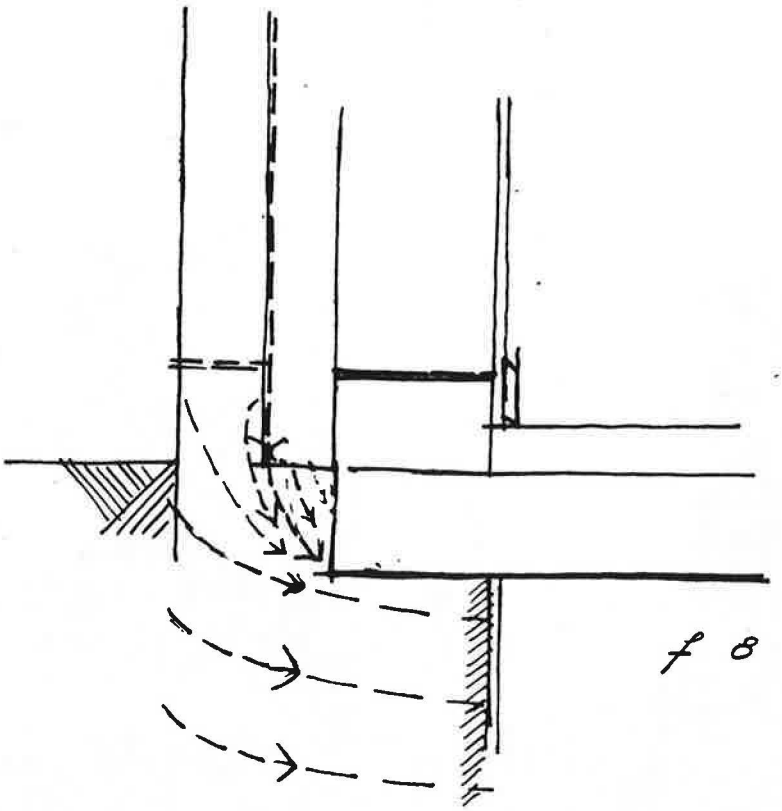
1.1.4 THE HEATING SYSTEM

Central heating system .gas fired.

1.1.5 MOISTURE PRODUCTION

HOUSE		NUMBER OF INHABITANTS	
8	eik 33	4	2 parents + 2 children
9	populier 18	4	2 parents + 2 children
10	beuk 21	2	2 pensioners
11	beuk 23	6	2 parents + 3 children + 1 baby
12	berk 46	5	2 parents + 3 older children
13	olm 9	4	2 parents + 2 older children

specific moisture sources:
The cellar walls are wet due to rain penetration (photo 10 and 11: f.8)



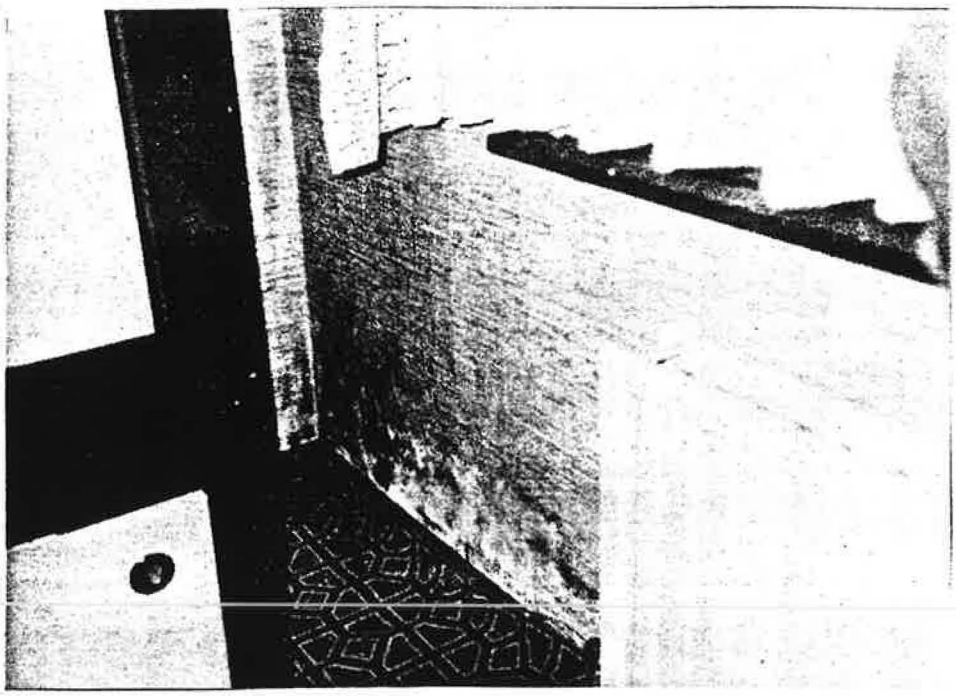


FOTO 1

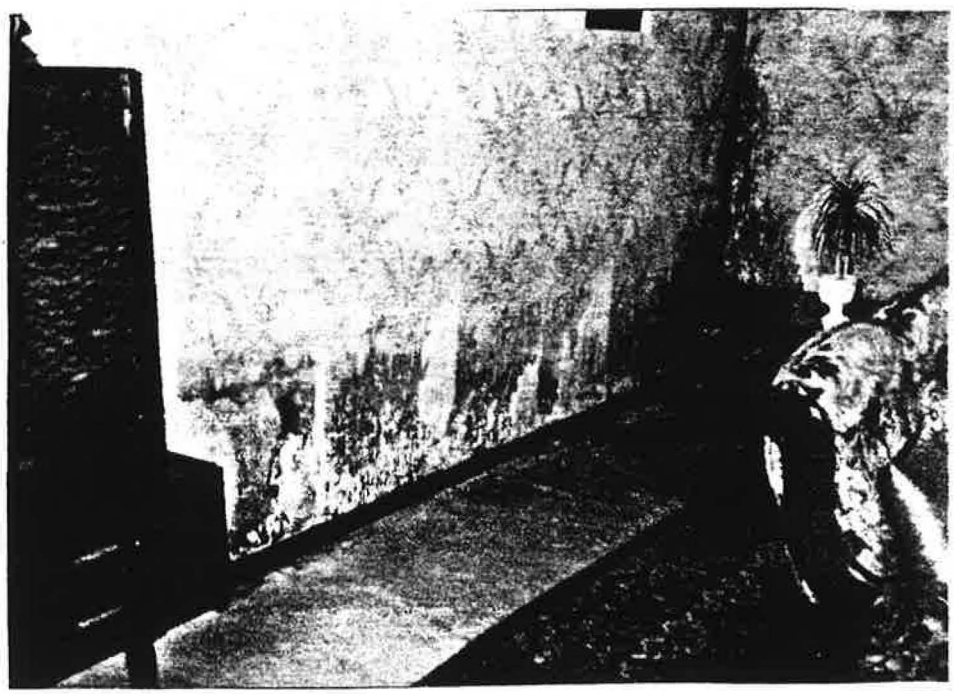


FOTO 2

1.2 THE DAMAGE

A. STATISTICAL DATA FOR THE WHOLE ESTATE

All rented houses were enquired, excepted those of which the inhabitants either were not at home or did refuse to cooperate.

Table 1 shows the total number of dwellings, the number of enquired and non enquired houses and the amount of complaints before and after retrofitting.
We see that 68% of the rented houses report moisture problems. Before retrofitting this percentage was only 7%.

Table 2 shows in which rooms problems occur: mostly in sleeping rooms, but for an important number of houses also in the kitchen, the bathroom and even the living room and staircase
The complaints are:

- living room: mould growth on the outer walls, especially in wall corners and on lintels. Also on the lower 80 cm we can see an intensive mould growth.(photo 1, 2, 3, 4)
- bathroom: mould growth on all the walls
- hall: mould growth on outer walls
- bedrooms: mould growth on walls and on the ceiling
- cellar: formation of salt, plaster lets loose (photo 6, 7, 8, 9)

Table 3 gives an overview of the damage caused by humidity. Striking is also the fact that many people have health complaints!
This shows once more that mould not only may be called a technical problem but also a human problem.

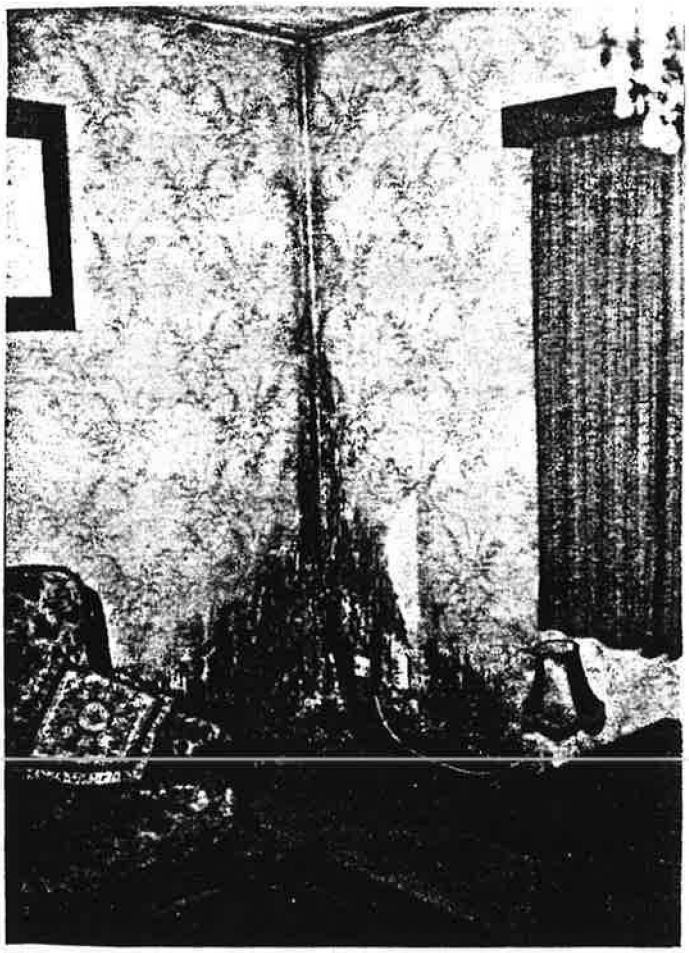


FOTO 3

FOTO 4

TABEL 1 : NUMBER OF DAMAGE CASES

	TOTAL number of dwellings	number of dwellings bought	%	NUMBER OF rented dwellings	%	NUMBER OF dwellings visited	%	NUMBER OF damage cases	%	idem before sanitation	%	NUMBER OF refusals	%	NUMBER OF people not at home	%
Berkenstr.	29	9	31 %	20	69 %	16	80 %	8	50 %	1	6 %	1	5 %	3	14 %
Beukenstr.	22	4	18 %	18	82 %	10	56 %	9	90 %	1	10 %	1	6 %	7	39 %
Hulststr.	4	4	100 %	-		-		-		-		-		-	
Bosbessenstr.	8	0	0 %	8	100 %	6	75 %	6	100 %	2	33 %	0	0 %	2	25 %
Bremstr.	13	6	46 %	7	54 %	4	57 %	2	50 %	0	0 %	0	0 %	3	43 %
Doornstr.	12	1	8 %	11	92 %	6	55 %	6	100 %	7	17 %	1	9 %	4	36 %
Eikenstr.	22	13	59 %	9	41 %	9	100 %	6	67 %	0	0 %	0	0 %	0	0 %
Galgenbergstr.	10	4	40 %	6	60 %	6	100 %	4	67 %	2	33 %	0	0 %	0	0 %
Kastanjestr.	4	0	0 %	4	100 %	3	75 %	3	100 %	0	0 %	1	25 %	0	0 %
Kolderstr.	20	5	25 %	15	75 %	13	87 %	8	62 %	1	8 %	0	0 %	2	13 %
Lijsterbessenstr.	8	2	25 %	6	75 %	6	100 %	4	67 %	0	0 %	0	0 %	0	0 %
Lindelaan	2	1	50 %	1	50 %	1	100 %	1	100 %	0	0 %	0	0 %	0	0 %
Mispelstr.	4	1	25 %	3	75 %	2	67 %	1	50 %	0	0 %	0	0 %	1	33 %
Olmenstr.	26	9	35 %	17	65 %	14	82 %	9	64 %	0	0 %	1	6 %	2	12 %
Populierenstr.	12	6	50 %	6	50 %	5	83 %	3	62 %	0	0 %	0	0 %	1	17 %
Varenstr.	8	5	63 %	3	37 %	3	100 %	1	33 %	0	0 %	0	0 %	0	0 %
Wilgenstr.	4	0	10 %	4	100 %	3	75 %	1	33 %	0	0 %	0	0 %	1	25 %
Kanadastr.	6	2	33 %	4	67 %	3	75 %	3	100 %	0	0 %	0	0 %	1	25 %
TOTAAL	**214**	**72**	**33 %**	**142**	**67 %**	**110**	**77 %**	**75**	**68 %**	**8**	**7 %**	**5**	**4 %**	**27**	**19 %**

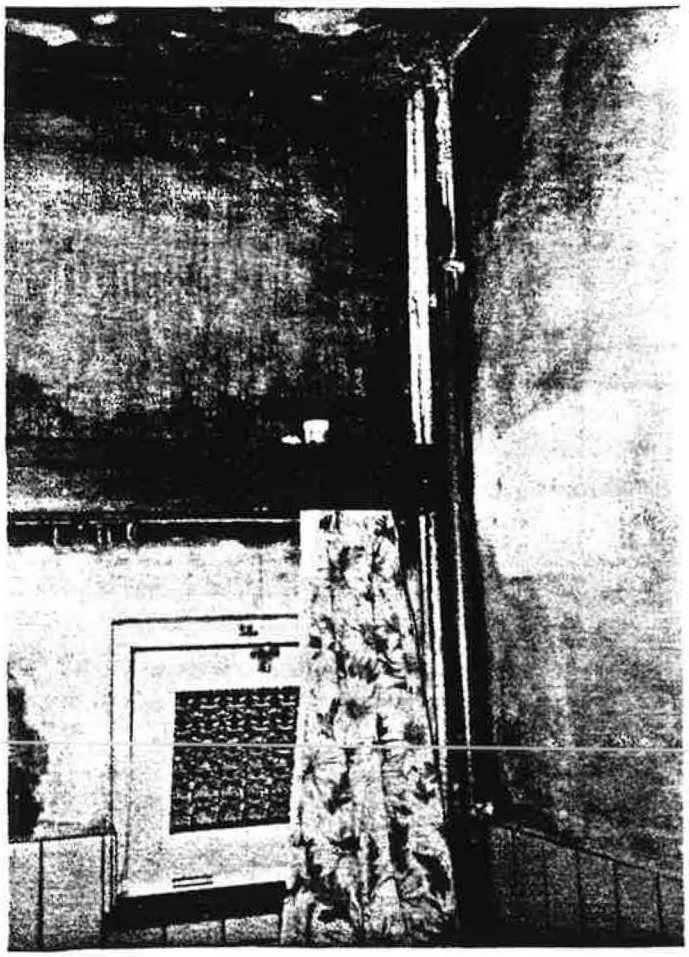


FOTO 5

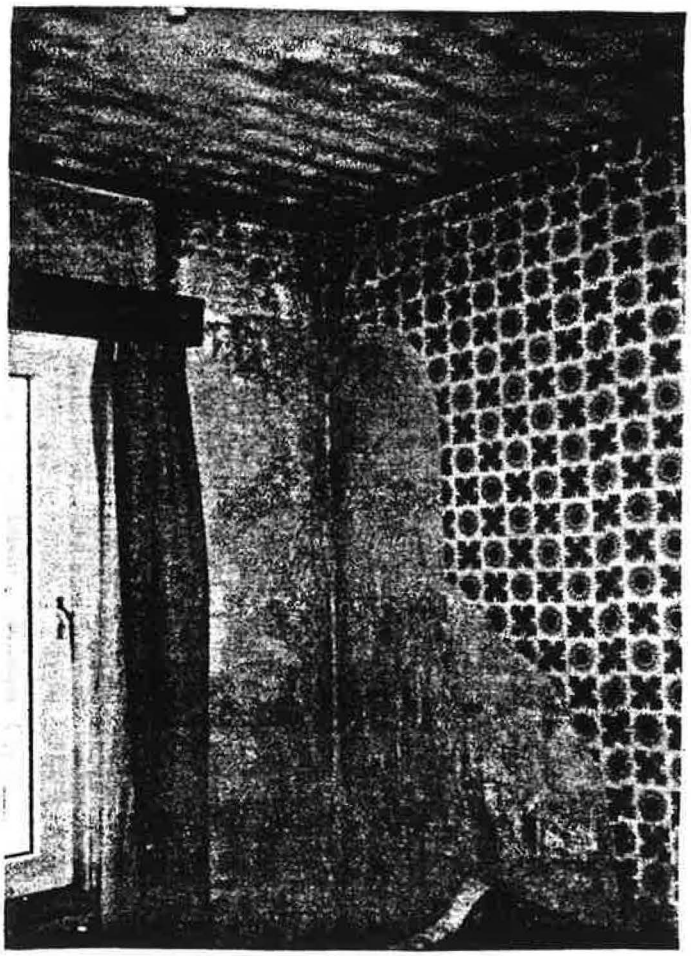


FOTO 6

TABEL 3 : DAMAGE CAUSED BY HUMIDITY

	TOTAL	MOULD ON WALLPAPER	FLOOR FINISHING	HEALTH PROBLEMS	FURNITURE	CLOTHES
Berkenstr.	8	3	2	2	1	0
Beukenstr.	8	4	1	4	2	0
Hulststr.	no rented dwellings					
Bosbessenstr.	7	2	0	1	-	-
Bremstr.	2	-	-	1	-	-
Doornstr.	6	3	1	2	3	2
Eikenstr.	6	2	-	2	1	1
Galgenbergstr.	4	-	-	1	2	1
Kastanjestr.	3	1	1	1	-	-
Kolderstr.	7	1	1	3	-	-
Lijsterbessenstr.	4	3	-	1	-	-
Lindelaan	1	-	-	-	1	-
Mispelstr.	1	1	-	1	1	-
Olmenstr.	9	1	-	3	2	1
Populierenstr.	3	3	-	1	-	-
Varenstr.	1	1	-	1	-	-
Wilgenstr.	1	-	-	-	-	-
Kanadastr.	4	1	-	-	1	-
TOTAAL	**75**	**26**	**6**	**26**	**14**	**5**

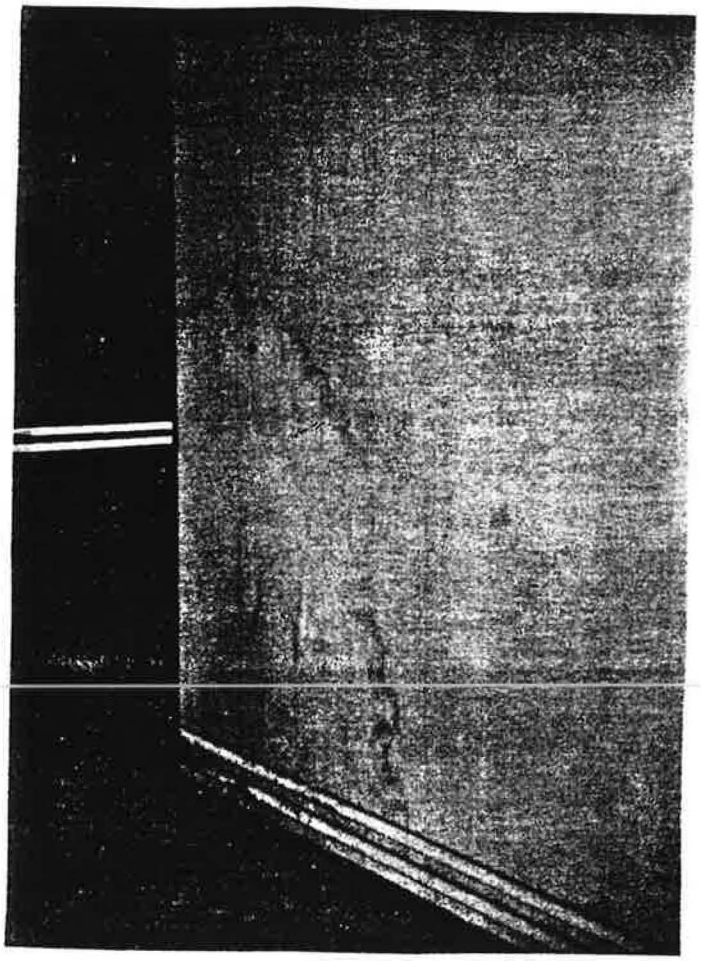


FOTO 7

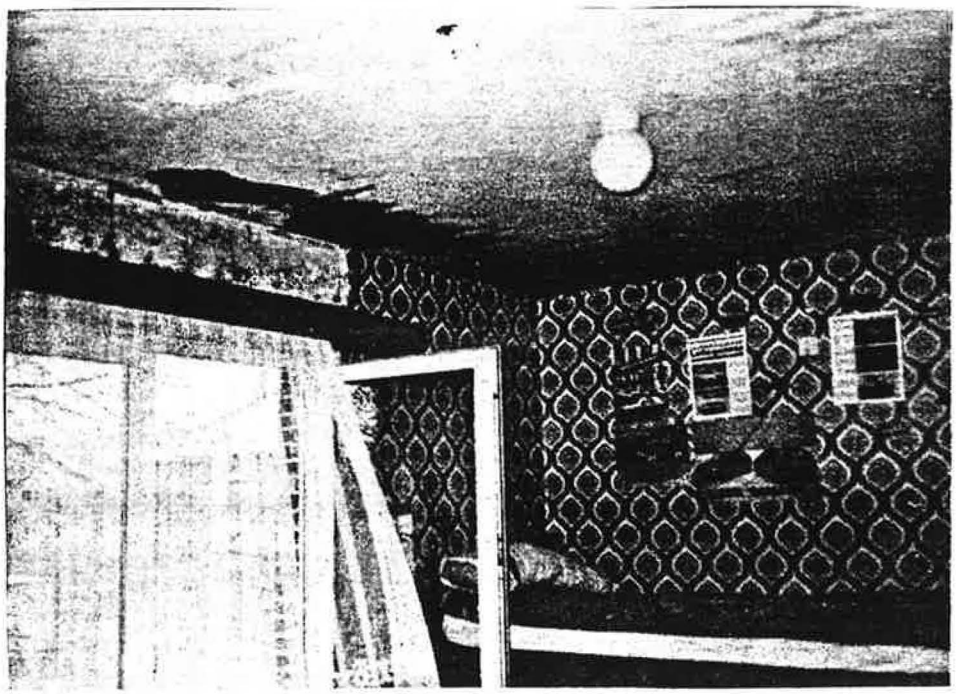


FOTO 8

TABEL 2 : DAMAGE PER ROOM

	TOTAL	BEDROOM	KITCHEN	BATHROOM	LIVING ROOM	HALL	CELLAR	STORAGE
Berkenstr.	8	6	2	3	3	1	1	-
Beukenstr.	9	9	5	4	5	4	2	-
Hulststr.	no rented dwellings							
Bosbessenstr.	6	6	1	1	-	5	-	-
Bremstr.	2	2	-	2	-	1	1	-
Doornstr.	6	4	1	1	1	1	1	-
Eikenstr.	6	6	-	1	1	3	-	-
Galgenbergstr.	4	3	-	2	3	-	1	-
Kastanjestr.	3	3	-	-	-	2	1	-
Kolderstr.	8	8	3	2	1	-	-	1
Lijsterbessenstr.	4	4	1	1	1	1	-	-
Lindelaan	1	-	-	-	1	-	-	-
Mispelstr.	1	1	-	1	-	-	-	-
Olmenstr.	9	6	6	8	3	4	1	-
Populierenstr.	3	3	-	-	-	1	1	-
Varenstr.	1	1	-	-	-	1	-	-
Wilgenstr.	1	-	-	-	1	1	-	-
Kanadastr.	3	3	3	2	1	-	1	-
TOTAAL	**75**	**64**	**22**	**27**	**22**	**25**	**10**	**1**

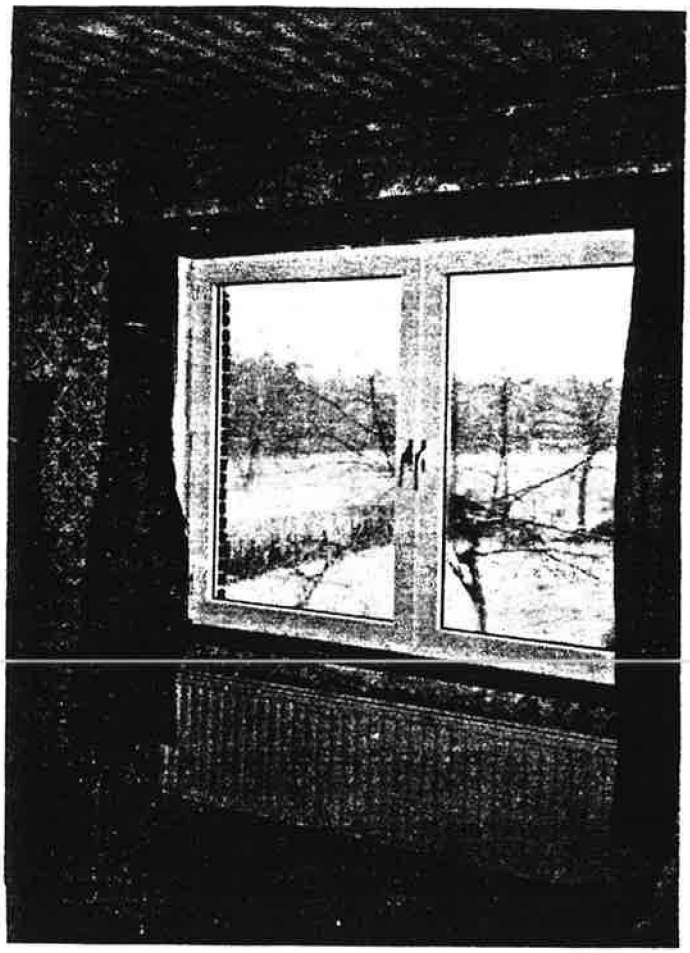


FOTO 9

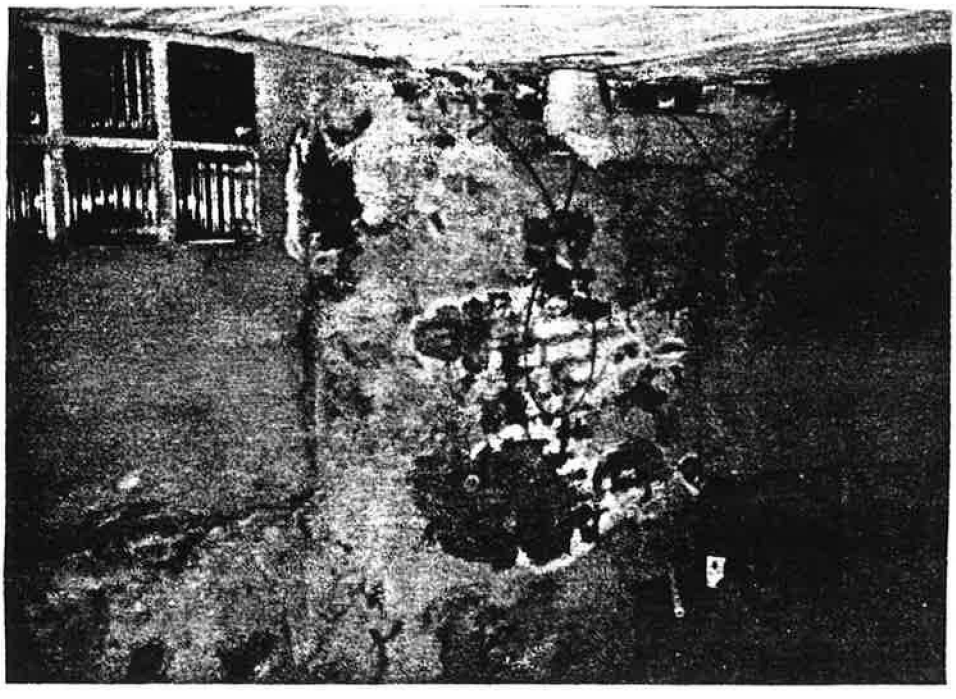


FOTO 10

B. DATA OF INDIVIDUAL HOUSES

Nine houses have been visited in detail and the damage described carefully.
Review of the results:

HOUSE	DAMAGE							
	LR	K	BR	SL1	SL2	SL3	SL4	HALL
1	C	0	0	D1	D3	D3	A	D1
2	B	0	E.D	E	E	D3	D2	D3
3	B	E.D	0	D3	D3	D3	D3	D2
4	E	E.D	A	D2	D2	D3	D3	D3
5	0	E	0	E	E	E	E	D3
6	0	D3	0	D2	E	E	E	D3
7	0	0	0	E	E	E	B	D3
8	0	D1	0	0	E	E,B	0	D1
9	0	D3	0	D1	D1	D2	D2	D3

A = mould growth around windows
B = mould growth in wall corners
C = mould growth behind wardrobes, cupboards
D = mould growth on walls

1 = light
2 = medium
3 = severe

E = mould growth on thermal bridges
0 = no mould

LR = living room
K = kitchen
BR = bathroom
SL = sleeping room

2.MEASUREMENTS

2.1 THE BUILDING AND ITS OCCUPANTS

2.1.1 LAY OUT

PLACE	SURFACE [M2]	HEIGHT [M]	VOLUME [M3]
staircase cellar	5,62	1,85	14,39
storage	12,45	1,85	23,03
stokehold	8,06	1,85	14,91
-1	**26,13**		**52,33**
hall	11,38	2,63	25,92
bathroom	2,78	2,63	7,31
kitchen	8,85	2,63	23,29
living room	29,62	2,63	77,36
0	**52,63**		**133,89**
bedroom 1	12,07	2,47	14,11
bedroom 2	16,51	2,47	40,78
bedroom 3	12,23	2,47	30,21
bedroom 4	5,79	2,47	14,30
hall	5,17	2,47	12,76
+1	**51,77**		**112,16**
TOTAL (INSIDE VOLUME)			**298,38**

OUTSIDE VOLUME (-cellar): 9 x 6,9 x 5,7 = **353,97 m3**
OUTSIDE SURFACE (-cellar): 2x9x6,9 + 2x5,7x9 + 6,9x5,7 = **266,13 m2**

COMPACTNESS (V/A): **1,33 m**

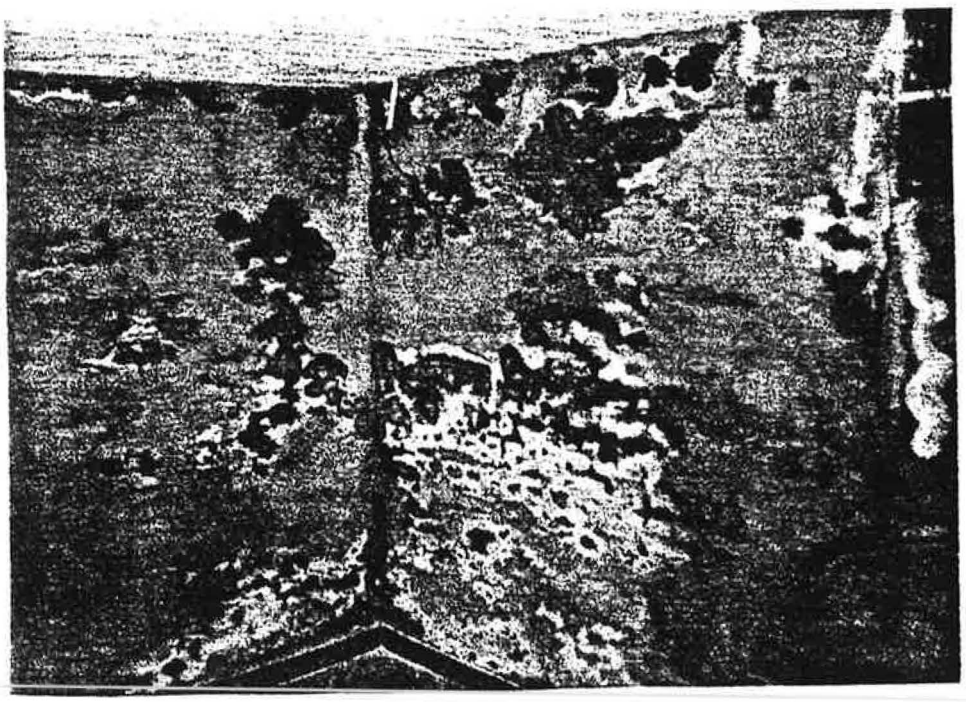
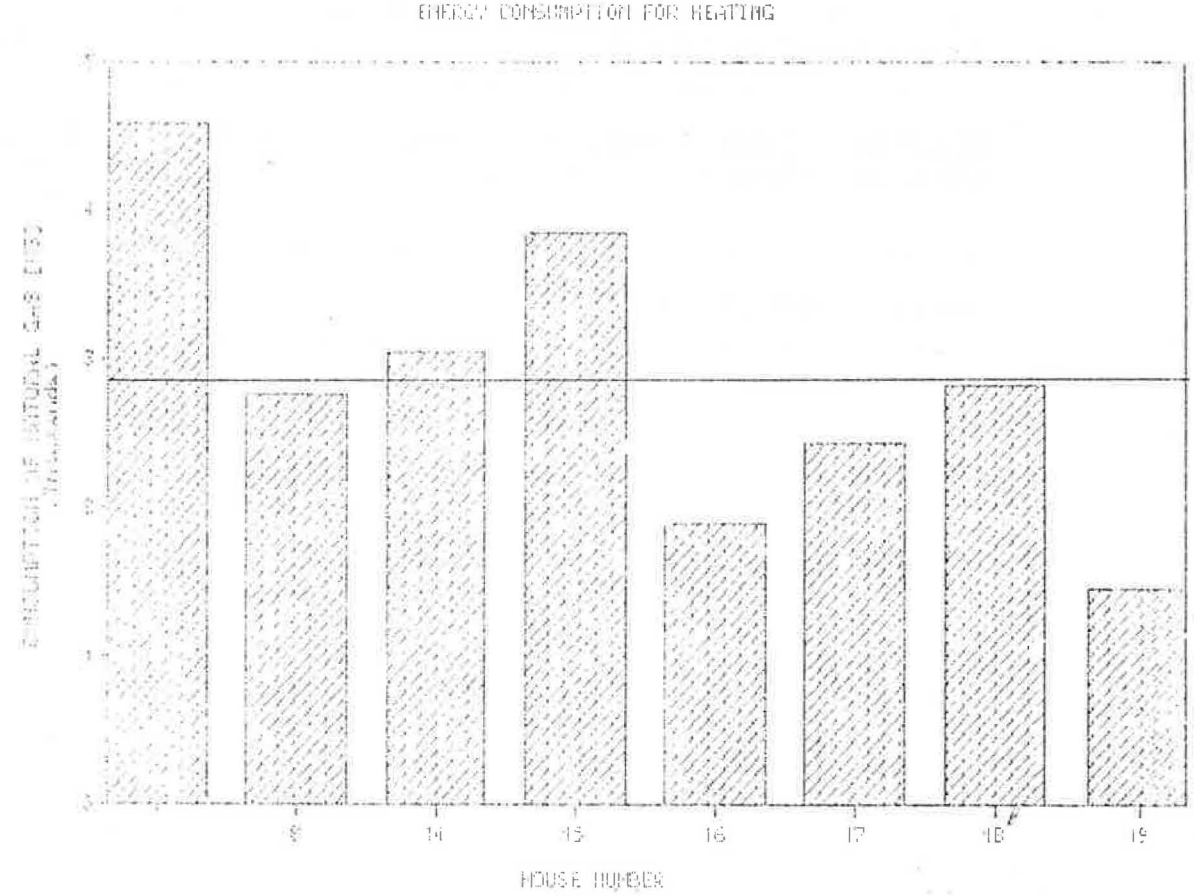


FOTO 11


ENERGY CONSUMPTION FOR HEATING
14
15
16
17
18
19
HOUSE NUMBER

2.1.2 THE BUILDING FABRIC

Measurements of surface temperatures and heat flow densities throuh outside wall and attic floor in house 10 (beukenstraat 21) during 15 days; appendix 3 gives the 30 min mean values.

For the calculation of surface coefficients and thermal resistance from these measurements: see 3.3.

The cavity of several houses has been inspected with a endoscope: in most cases a watertight layer at the bottom of the cavity seems missing, also the cavity breadth is very irregular (4 to 6 cm : non modulated bricks) with for the lower part an enlargement to 10 cm.
A lot of mortar fils the bottom of the cavity.

2.1.3 VENTILATION

Measurements of the airtightness of 4 dwellings was performed by the Belgian Building Research Institute (see appendix 1)

2.1.4 HEATING (f 2.1)

The invoices of five dwellings have been studied. The following tabel shows the mean annual consumption of natural gas (in m3 and MJ), in common with the annual cost (calculated with the prices of natural gas in 1987).

HOUSE	AVERAGE PER YEAR [M3]	[MJ]	ANNUAL COST (1987) [BF]
1	4589	164529	54881
8	2764	99025	34516
14	3060	110833	38187
15	3863	137609	46512
16	1904	68065	24891
17	2439	87816	31031
18	2831	102079	35465
19	1469	52656	20100
ESTATE	2865	102827	35698

more detailed information : see appendix 2c

2.1.5 INSIDE CLIMATE

A. SHORT TERM MEASURING OF TEMPERATURES AND R.H.

During the different visits of the houses, short term measuring was done with an Assmann-psychometer. In appendix 2a the results are gathered for each house.

B. LONG TERM MEASUREMENTS

1. THERMO-HYGROGRAPH

HOUSE		MEASUREMENTS PERIOD	PLACES
5	BERK 46	21/01/87 -> 22/02/87	living room
12	BEUK 21	21/10/86 -> 20/03/87	outside living room bedroom cellar
13	OLM 9	21/1/86 -> 5/2/87	outside living room

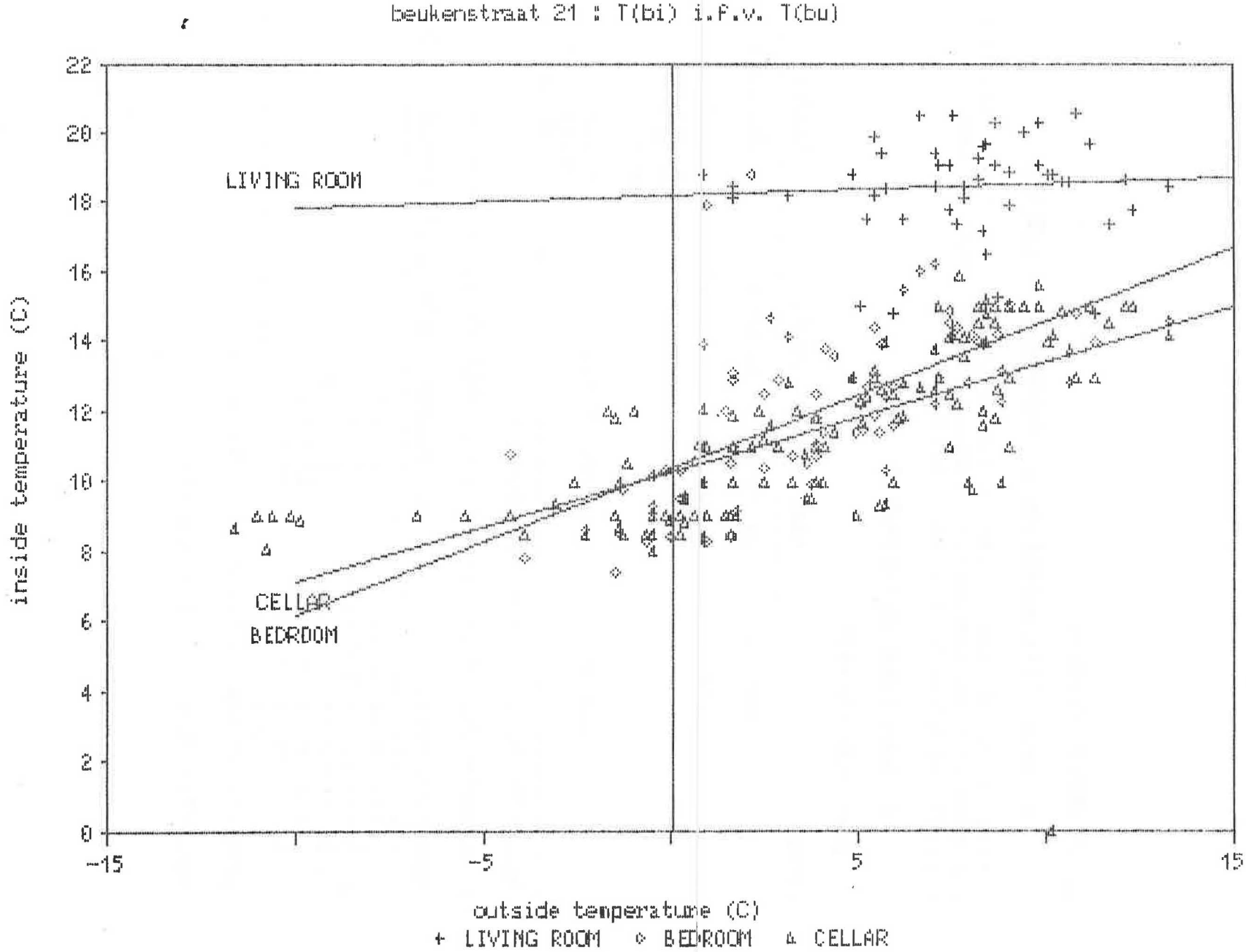
MEASURING RESULTS: see appendix 2b

2.MEASUREMENTS OF TEMPERATURES AND HEAT FLOWS IN HOUSE 12

MEASURING PERIOD	DAY NUMBER	NUMBER OF COMPLETE DAYS
1: 12/11/86 -> 14/11/86	1 -> 3	1
2: 20/11/86 -> 24/11/86	4 -> 8	3
3: 28/11/86 -> 2/12/86	9 -> 13	3
4: 5/12/86 -> 9/12/86	14 -> 18	3
5: 12/12/86 -> 18/12/86	19 -> 26	5

Location of the measuring points: see f 2.2

MEASURING RESULTS : see appendix 2b


beukenstraat 21 : T(bi) i.f.v. T(bu)
inside temperature (C)
22
20
18
16
14
12
10
8
6
4
2
0
LIVING ROOM
CELLAR
BEDROOM
-15
-5
5
15
outside temperature (C)
+ LIVING ROOM ◇ BEDROOM △ CELLAR

f.3.1

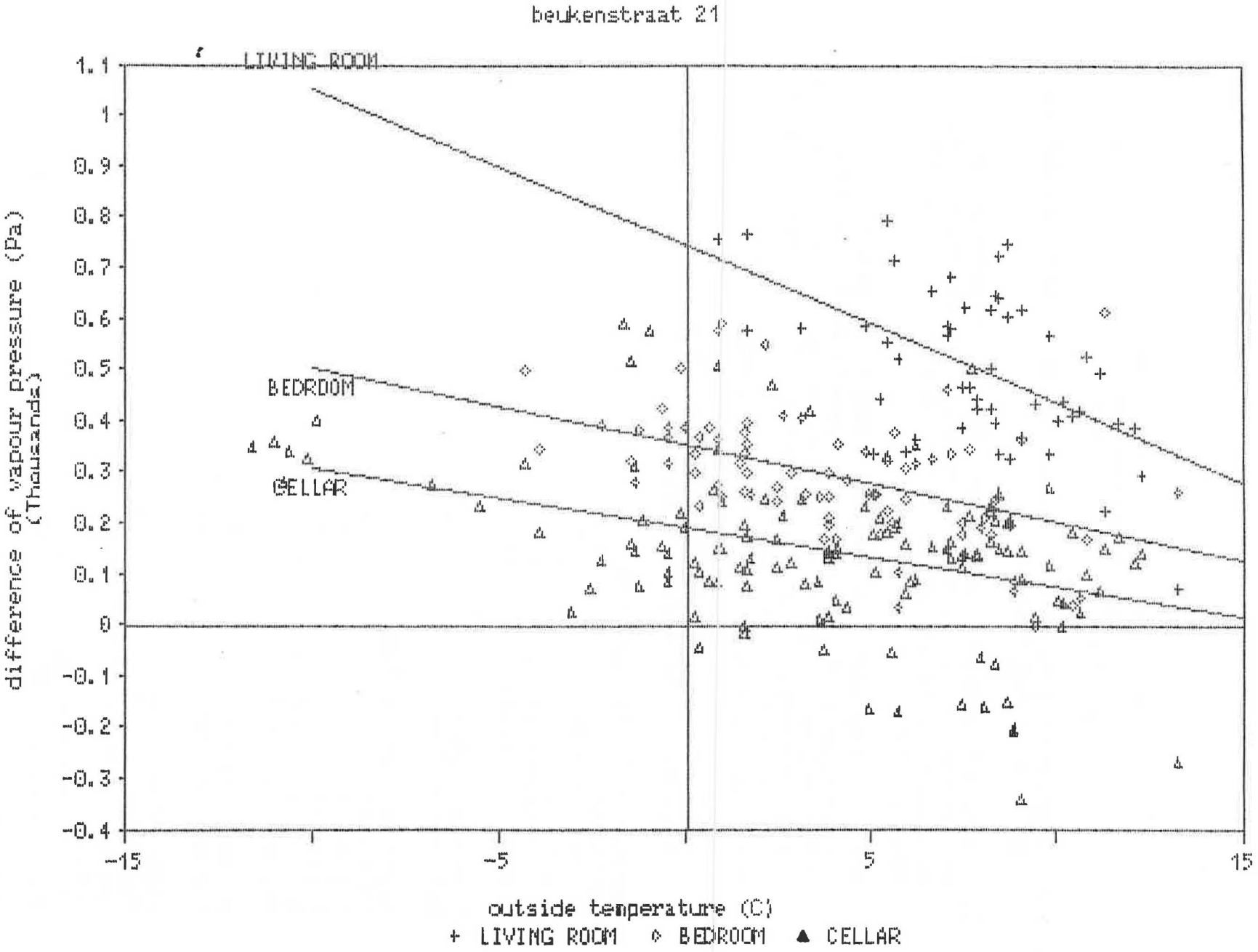
3. UNDERSTANDING

3.1 CORRELATION BETWEEN THE INSIDE (HOUSE 10 BEUKENSTRAAT 23) AND OUTSIDE TEMPERATURE

1. Figure 3.1 gives the daily mean inside temperature of the living room, cellar and bedroom as a function of the outside temperature (measurements performed by thermo-hygrographs).

   * The living room temperature seems to be rather independent of the outside temperature: nearly 18 C
   * The bedroom temperature on the contrary varies very much with changing outside temperature: these rooms are most of the time not heated.
   * The cellar temperature depends on the outside temperature but once lower than 0 C the cellar temperature seems to stabilise at 9 C.
   * Results of the regressions:

Regression 1: living room	
Constant:	18,2
Std Err of Y Est	1,4
R squared	0,0047
No. of Observations	51
Degrees of freedom	49
X coefficient(s)	0,035
Std Err of Coef.	0,073
Regression 2: bedroom	
Constant:	10,4
Std Err of Y Est	1,9
R squared	0,41
No. of Observations	80
Degrees of freedom	78
X coefficient(s)	0,420
Std Err of Coef.	0,057
Regression 3: cellar	
Constant:	10,3
Std Err of Y Est	1,5
R squared	0.55
No. of Observations	130
Degrees of freedom	128
X coefficient(s)	0.314
Std Err of Coef.	0.025


beukenstraat 21
LIVING ROOM
BEDROOM
CELLAR
difference of vapour pressure (Pa)
(Thousands)
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-15
-5
5
15
outside temperature (C)
+ LIVING ROOM ◇ BEDROOM ▲ CELLAR

f 3.2

3.2 CORRELATION BETWEEN THE OUTSIDE TEMPERATURE AND THE DIFFERENCE OF VAPOUR PRESSURE INSIDE - OUTSIDE (house 10; beukenstraat 23)

3.2.1 DAILY MEAN VALUES

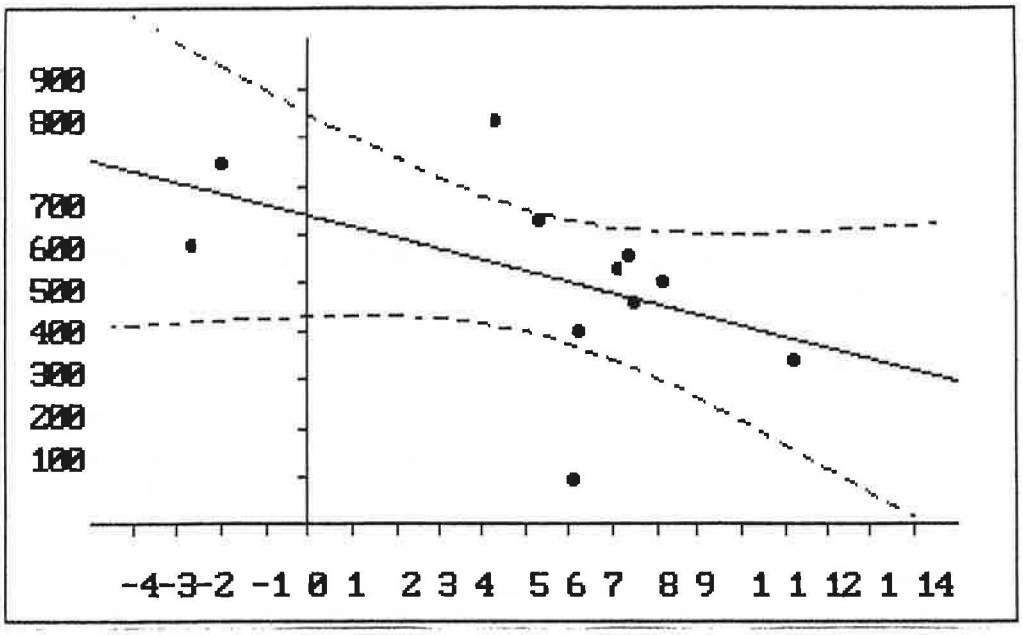
Figure 3.2 gives the difference of vapour pressure inside-outside for the living room, bedroom and cellar as a function of the outside temperature (measurements performed by thermo-hygrographs)

* The difference of vapour pressure is higher the lower the outside temperature : people ventilate more with warmer weather.

* The difference of vapour pressure is the highest in the living room, lower in sleeping rooms and the lowest in the cellar

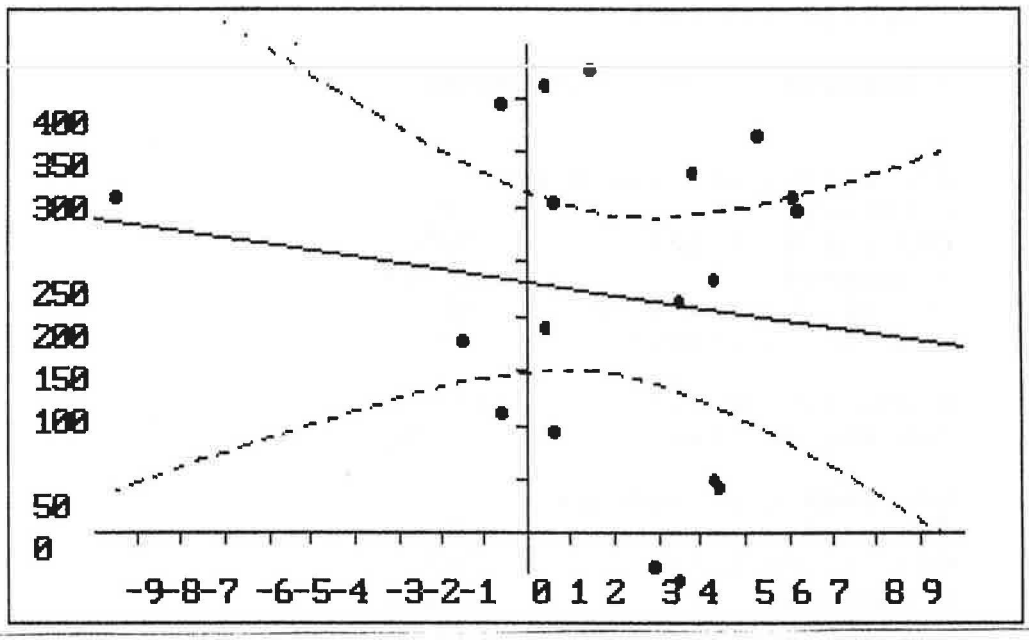
* Results of the regressions

Regression 1: living room	
Constant:	743
Std Err of Y Est	129
R squared	0,298
No. of Observations	51
Degrees of freedom	49
X coefficient(s)	-30,85
Std Err of Coef.	6,76
Regression 2: bedroom	
Constant:	353
Std Err of Y Est	106
R squared	0,220
No. of Observations	80
Degrees of freedom	78
X coefficient(s)	-15,08
Std Err of Coef.	3,21
Regression 3: cellar	
Constant:	191
Std Err of Y Est	144
R squared	0.155
No. of Observations	130
Degrees of freedom	128
X coefficient(s)	-11,67
Std Err of Coef.	2,41



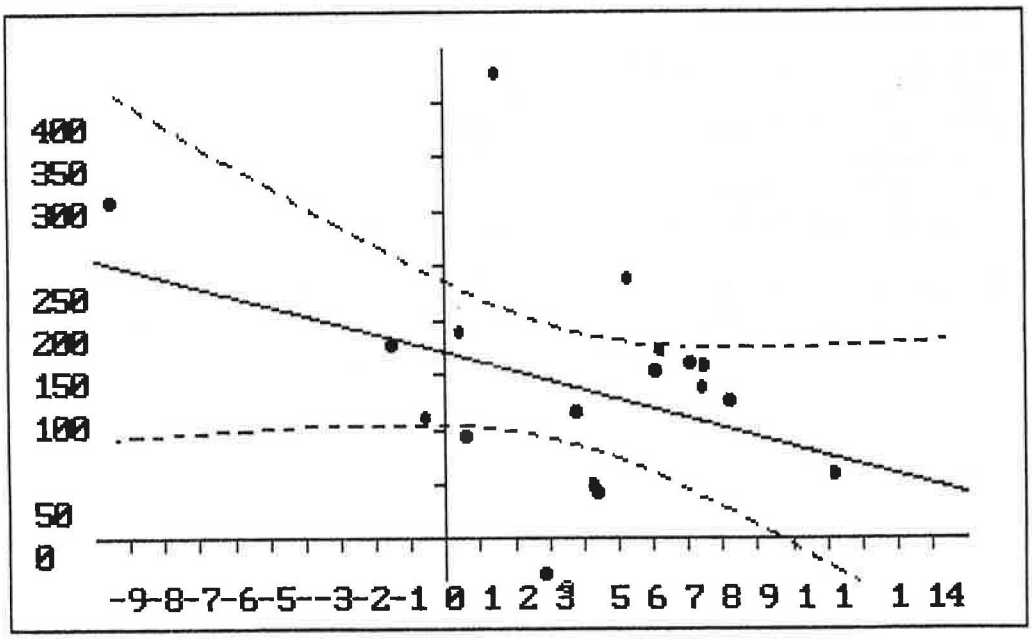
ʃ3.3

beuk21sl



ʃ3.4

beuk21ke



ʃ3.5

3.2.2 WEEKLY MEAN VALUES (f.3.3 to 3.5)

The same conclusions as for the daily mean values can be drawn.
Results of the correlations:

Regression 1: living room	
Constant:	638
Std Err of Y Est	92
R squared	0,483
No. of Observations	11
Degrees of freedom	9
X coefficient(s)	-22.97
Std Err of Coef.	13.88
Regression 2: bedroom	
Constant:	231
Std Err of Y Est	39
R squared	0.144
No. of Observations	19
Degrees of freedom	17
X coefficient(s)	-5.88
Std Err of Coef.	9.82
Regression 3: cellar	
Constant:	170
Std Err of Y Est	31
R squared	0.353
No. of Observations	19
Degrees of freedom	17
X coefficient(s)	-8.48
Std Err of Coef.	5.45

TABEL 1

18 temp (outside)	1 temp room1	MEAN flux wall	14 temp wall inside	16 temp wall outside	Flux*ijk (7,27)	R	hi	he	U
						average: 0.623	3.856	11.552	1.101
11.633	14.575	0.517	13.371	12.075	3.762	0.344	3.124	8.518	1.279
3.844	11.925	1.031	10.621	4.298	7.497	0.843	5.748	16.506	0.928
6.490	11.915	0.932	10.025	6.975	6.776	0.450	3.586	13.960	1.249
4.879	12.894	1.129	10.581	5.558	8.211	0.612	3.551	12.090	1.025
-0.006	12.958	1.317	10.352	3.402	9.576	0.726	3.675	2.810	0.739
-0.006	11.973	1.179	9.752	2.633	8.575	0.830	3.861	3.249	0.716
0.794	11.771	1.694	8.970	1.113	12.318	0.638	4.397	38.589	1.122
3.886	13.093	0.927	11.350	5.350	6.742	0.890	3.867	4.606	0.732
3.004	11.371	0.866	9.610	4.008	6.297	0.890	3.577	6.271	0.753
9.915	12.646	0.919	10.706	9.842	6.680	0.129	3.444	-91.611	2.446
3.152	10.588	1.156	8.240	3.402	8.405	0.576	3.580	33.619	1.130
1.873	11.765	1.371	9.138	2.850	9.966	0.631	3.794	10.200	1.008
1.956	11.346	1.285	9.146	2.619	9.341	0.699	4.246	14.099	0.995
3.249	11.380	1.200	8.900	3.600	8.724	0.608	3.518	24.847	1.073
3.835	12.242	1.537	9.360	3.983	11.171	0.481	3.877	75.525	1.329

TABEL 2

18 temp (outside)	1 temp room1	MEAN flux ceiling	15 temp ceiling inside	17 temp ceiling outside	Flux*ijk (6,79)	R	hi	he
						average: 0.263	5.806	-1.420
11.633	14.575	1.071	13.233	11.525	7.272	0.235	5.420	-67.122
3.844	11.925	1.876	10.104	6.442	12.738	0.288	6.996	4.903
6.490	11.915	1.429	10.071	7.679	9.702	0.247	5.262	8.155
4.879	12.894	2.140	10.390	6.819	14.532	0.246	5.803	7.492
-0.006	12.958	2.711	9.838	4.610	18.405	0.284	5.898	3.987
-0.006	11.973	2.412	9.246	4.375	16.376	0.297	6.005	3.738
0.794	11.771	2.871	8.505	3.497	19.497	0.257	5.969	7.212
3.886	13.093	1.709	11.155	7.868	11.607	0.283	5.986	2.915
3.004	11.371	1.845	9.246	5.548	12.526	0.295	5.895	4.924
9.915	12.646	1.177	11.175	9.629	7.989	0.193	5.432	-27.992
3.152	10.588	1.919	8.373	5.215	13.031	0.242	5.884	6.318
1.873	11.765	2.219	9.194	5.081	15.069	0.273	5.862	4.697
1.956	11.346	1.972	8.927	4.860	13.390	0.304	5.536	4.611
3.249	11.380	2.000	8.900	5.300	13.580	0.265	5.476	6.621
3.835	12.242	2.311	9.475	5.740	15.690	0.238	5.671	8.240

3.3 CALCULATION OF R-, hi-, he-,U- AND t-VALUES OUT OF THE MEASUREMENTS OF HEAT FLOW ,SURFACE- AND AIR TEMPERATURES.

3.3.1 THERMAL RESISTANCE (t 3.1 and 3.2; f 3.6 and 3.7)

$$q = 1/R \ (\theta_{si} - \theta_{se}) \qquad [W/m2]$$

MEAN VALUE	R [m2K/W]	Std dev
bedroom wall	0.62	0.20
bedroom ceiling	0.26	0.03

REGRESSION	q	r
bedroom wall	4.44 + 0.73 $(\theta_{si} - \theta_{se})$	0.493
bedroom ceiling	2.58 + 3.03 $(\theta_{si} - \theta_{se})$	0.905

3.3.2 SURFACE COEFFICIENTS (t 3.1 and 3.2; f 3.8 to 3.11)

$$q = hi \ (\theta_i - \theta_{si}) \qquad [W/m2]$$
$$q = he \ (\theta_e - \theta_{se}) \qquad [W/m2]$$

MEAN VALUE	hi [W/m2K]	Std dev
bedroom wall	3.86	0.59
bedroom ceiling	5.81	0.42
	he [W/m2K]	
bedroom wall	11.55	33.07
bedroom ceiling	-1.42	20.89

REGRESSION	q	r
bedroom wall	0.26 + 3.72 $(\theta_i - \theta_{si})$	0.796
	8.11 + 0.18 $(\theta_{se} - \theta_e)$	0.007
bedroom ceiling	-0.40 + 5.99 $(\theta_i - \theta_{si})$	0.950
	9.20 + 1.78 $(\theta_{se} - \theta_e)$	0.536

REMARKS : From time to time the outside surface temperature goes unders the air temperature. The temperature coefficient becomes than negative (and with a great absolute value), reason why also the mean value can be negative.
The standard deviation on he is important and the regression results for the outside surface coefficient seem to be bad. These values are indeed continuously fluctuating.

3.3.3 U-VALUES (t 3.1 and 3.2; f 3.12 and 3.13)

$$q = U\ (\theta_i - \theta_e) \qquad [W/m2]$$

MEAN VALUE	U [W/m2K]	Std dev
bedroom wall	1.10	0.41
bedroom ceiling	33000	00455

REGRESSION	q	r
bedroom wall	4.13 + 0.50 $(\theta_i - \theta_e)$	0.463
bedroom ceiling	4.79 + 1.16 $(\theta_i - \theta_e)$	0.822

REMARKS: Due to the fluctuation on he, the U-value is less relyable either.

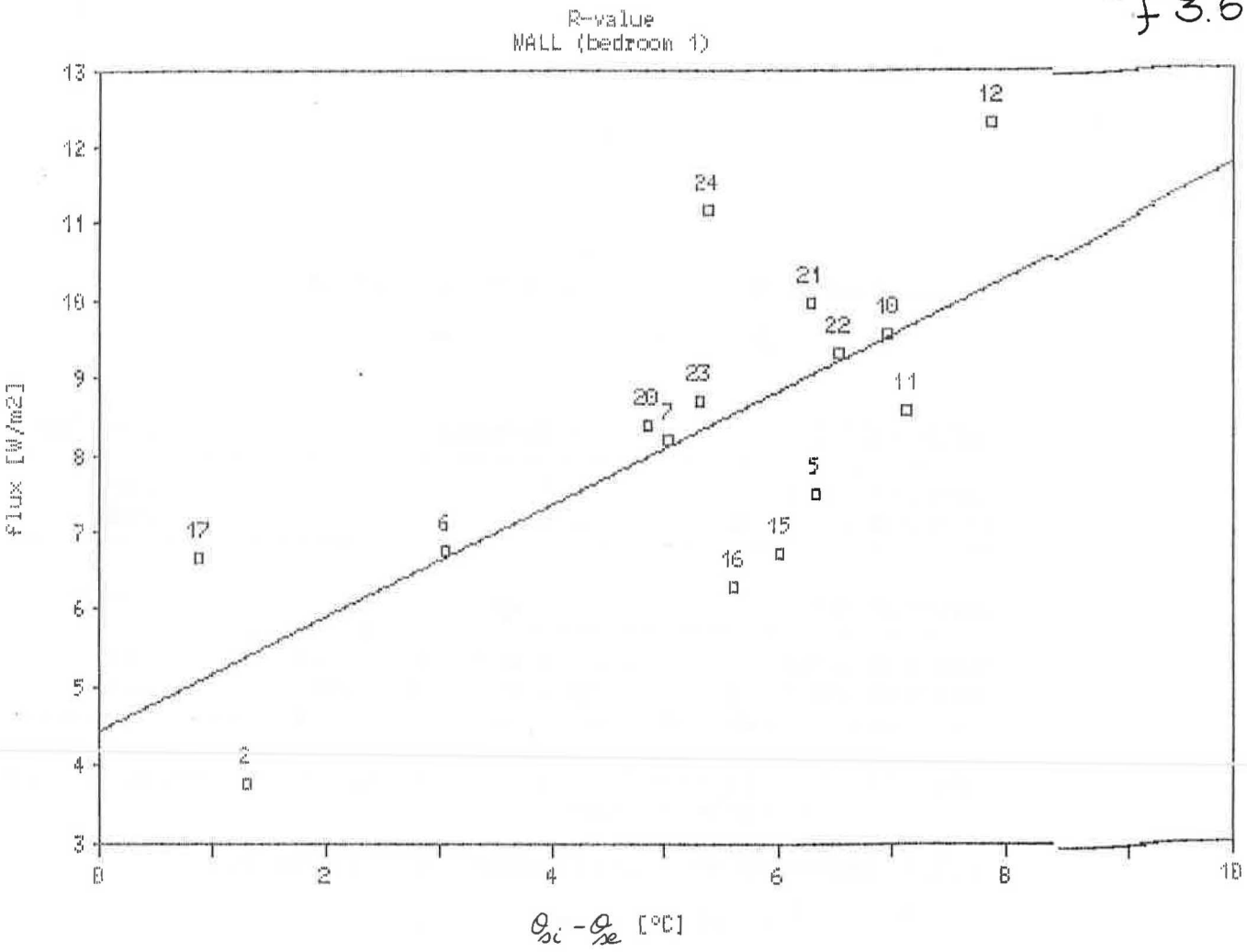
3.3.4 TEMPERATURE COEFFICIENTS (f 3.14 to 3.25)

$$\tau = (\theta_{si} - \theta_e) / (\theta_i - \theta_e) \qquad [\ ]$$

MEAN VALUE	τ	Std dev
1 bedroom wall	0.705	0.130
2 bedroom ceiling	0.697	0.086
3 living lintel (down)	0.827	0.023
4 living lintel (middle)	0.733	0.038
5 living lintel (up)	0.817	0.196
6 living wall (floor)	0.597	0.074
7 living wall (down)	0.573	0.024
8 living wall (middle)	0.764	0.064
9 living corner (down)	0.435	0.099
10 living corner (middle)	0.552	0.050

REGRESSION	τ	r
1 bedroom wall	-1.33 + 0.90 $(\theta_i - \theta_e)$	0.974
2 bedroom ceiling	-0.92 + 0.83 $(\theta_i - \theta_e)$	0.986
3 living lintel (down)	-0.29 + 0.85 $(\theta_i - \theta_e)$	0.991
4 living lintel (middle)	-0.83 + 0.80 $(\theta_i - \theta_e)$	0.984
5 living lintel (up)	2.83 + 0.59 $(\theta_i - \theta_e)$	0.590
6 living wall (floor)	-2.08 + 0.77 $(\theta_i - \theta_e)$	0.975
7 living wall (down)	-1.75 + 0.72 $(\theta_i - \theta_e)$	0.977
8 living wall (middle)	-0.22 + 0.78 $(\theta_i - \theta_e)$	0.986
9 living corner (down)	-2.42 + 0.64 $(\theta_i - \theta_e)$	0.963
10 living corner (middle)	-1.09 + 0.64 $(\theta_i - \theta_e)$	0.958

f 3.6

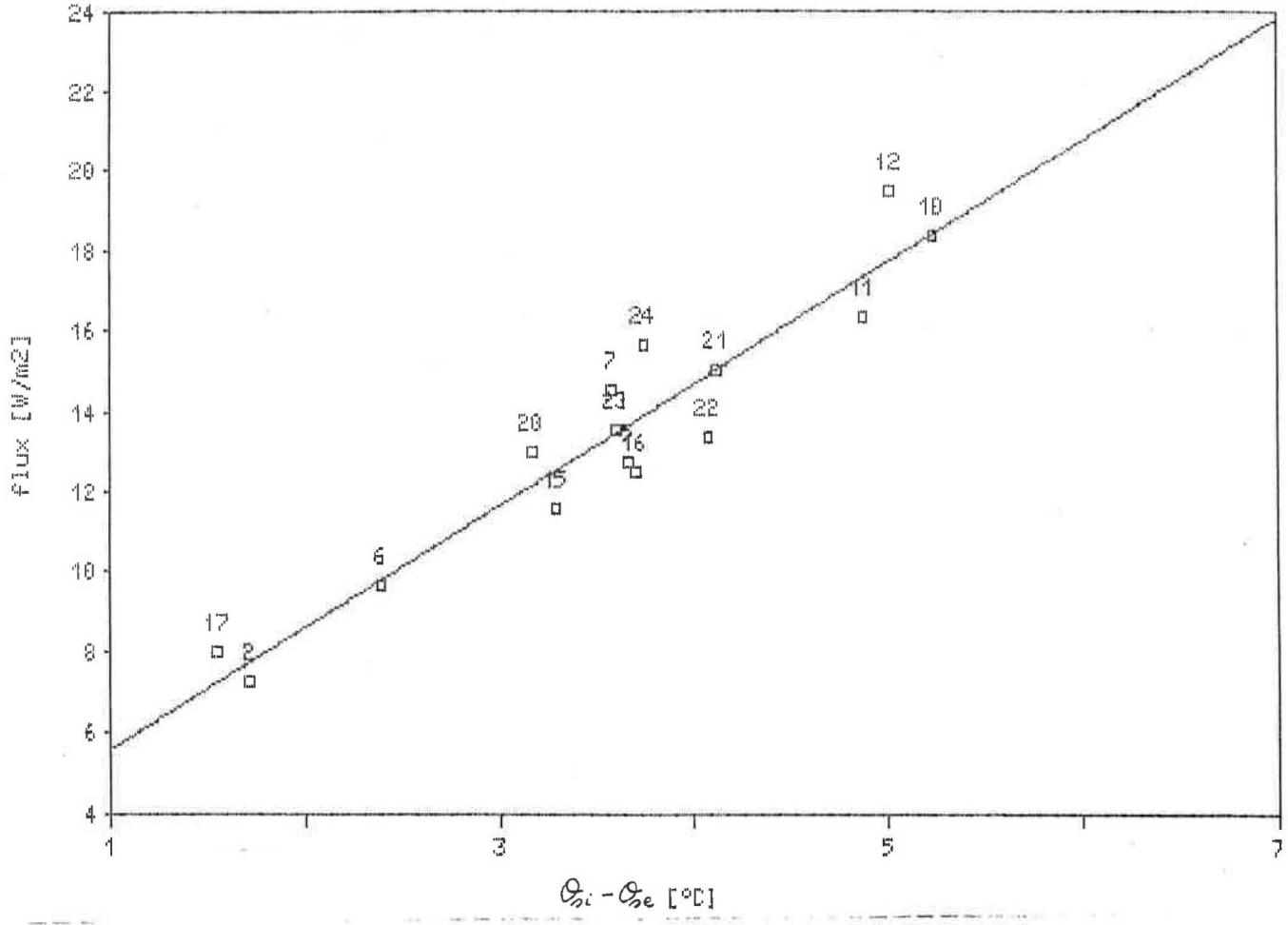


Regression Output:

Constant	4.441
Std Err of Y Est	1.565
R Squared	0.493
No. of Observations	15.000
Degrees of Freedom	13.000
X Coefficient(s)	0.732
Std Err of Coef.	0.206

18 temp (outside)	1 temp room1	MEAN flux wall	14 temp wall inside	16 temp wall outside	Flux*ijk (7,27)	R average: 0.623
11.633	14.575	0.517	13.371	12.075	3.762	0.344
3.844	11.925	1.031	10.621	4.298	7.497	0.843
6.490	11.915	0.932	10.025	6.975	6.776	0.450
4.879	12.894	1.129	10.581	5.558	8.211	0.612
-0.006	12.958	1.317	10.352	3.402	9.576	0.726
-0.006	11.973	1.179	9.752	2.633	8.575	0.830
0.794	11.771	1.694	8.970	1.113	12.318	0.638
3.886	13.093	0.927	11.350	5.350	6.742	0.890
3.004	11.371	0.866	9.610	4.008	6.297	0.890
9.915	12.646	0.919	10.706	9.842	6.680	0.129
3.152	10.588	1.156	8.240	3.402	8.405	0.576
1.873	11.765	1.371	9.138	2.850	9.966	0.631
1.956	11.346	1.285	9.146	2.619	9.341	0.699
3.249	11.380	1.200	8.900	3.600	8.724	0.608
3.835	12.242	1.537	9.360	3.983	11.171	0.481

f 3.7

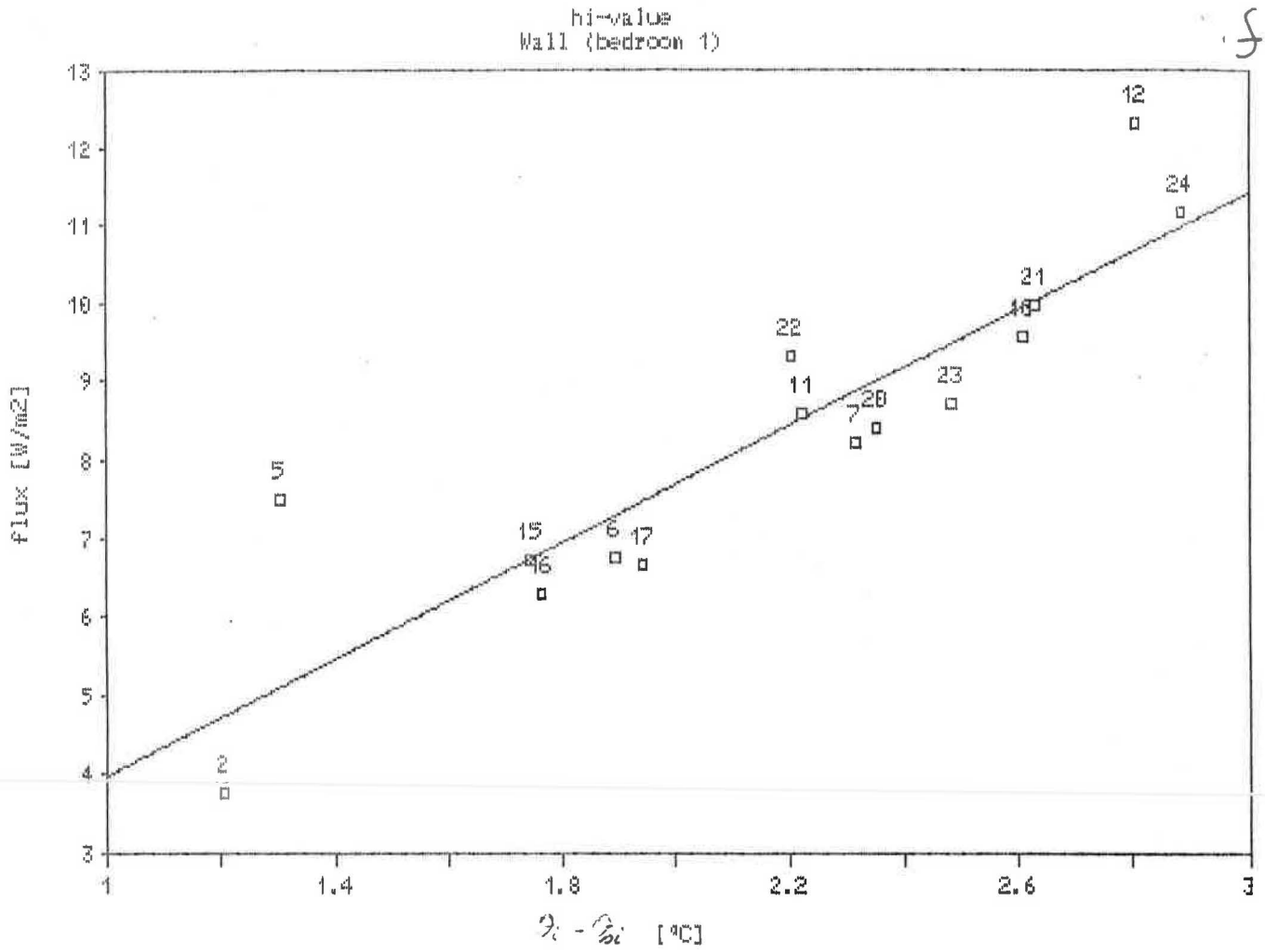


θ_e 18 temp (outside)	θ_i 1 temp room1	MEAN flux ceiling	θ_{si} 15 temp ceiling inside	θ_{se} 17 temp ceiling outside	Flux*ijk (6,79)	R $[\frac{m^2K}{W}]$
						average: 0.263
-11.633	14.575	1.071	13.233	11.525	7.272	0.235
3.844	11.925	1.876	10.104	6.442	12.738	0.288
6.490	11.915	1.429	10.071	7.679	9.702	0.247
4.879	12.894	2.140	10.390	6.819	14.532	0.246
-0.006	12.958	2.711	9.838	4.610	18.405	0.284
-0.006	11.973	2.412	9.246	4.375	16.376	0.297
0.794	11.771	2.871	8.505	3.497	19.497	0.257
3.886	13.093	1.709	11.155	7.868	11.607	0.283
3.004	11.371	1.845	9.246	5.548	12.526	0.295
9.915	12.646	1.177	11.175	9.629	7.989	0.193
3.152	10.588	1.919	8.373	5.215	13.031	0.242
1.873	11.765	2.219	9.194	5.081	15.069	0.273
1.956	11.346	1.972	8.927	4.860	13.390	0.304
3.249	11.380	2.000	8.900	5.300	13.580	0.265
3.835	12.242	2.311	9.475	5.740	15.690	0.238

	$\theta_i - \theta_e$	$\theta_{si} - \theta_{se}$	$\theta_i - \theta_{si}$	$\theta_{se} - \theta_e$
average	8.263	3.576	2.307	2.379
DAY 2	2.942	1.708	1.342	-0.108
DAY 5	8.081	3.663	1.821	2.598
DAY 6	5.425	2.392	1.844	1.190
DAY 7	8.015	3.571	2.504	1.940
DAY 10	12.965	5.227	3.121	4.617
DAY 11	11.979	4.871	2.727	4.381
DAY 12	10.977	5.007	3.266	2.704
DAY 15	9.207	3.286	1.939	3.982
DAY 16	8.367	3.698	2.125	2.544
DAY 17	2.731	1.546	1.471	-0.285
DAY 20	7.435	3.158	2.215	2.063
DAY 21	9.892	4.113	2.571	3.208
DAY 22	9.390	4.067	2.419	2.904
DAY 23	8.131	3.600	2.480	2.051
DAY 24	8.406	3.735	2.767	1.904

Regression Output:

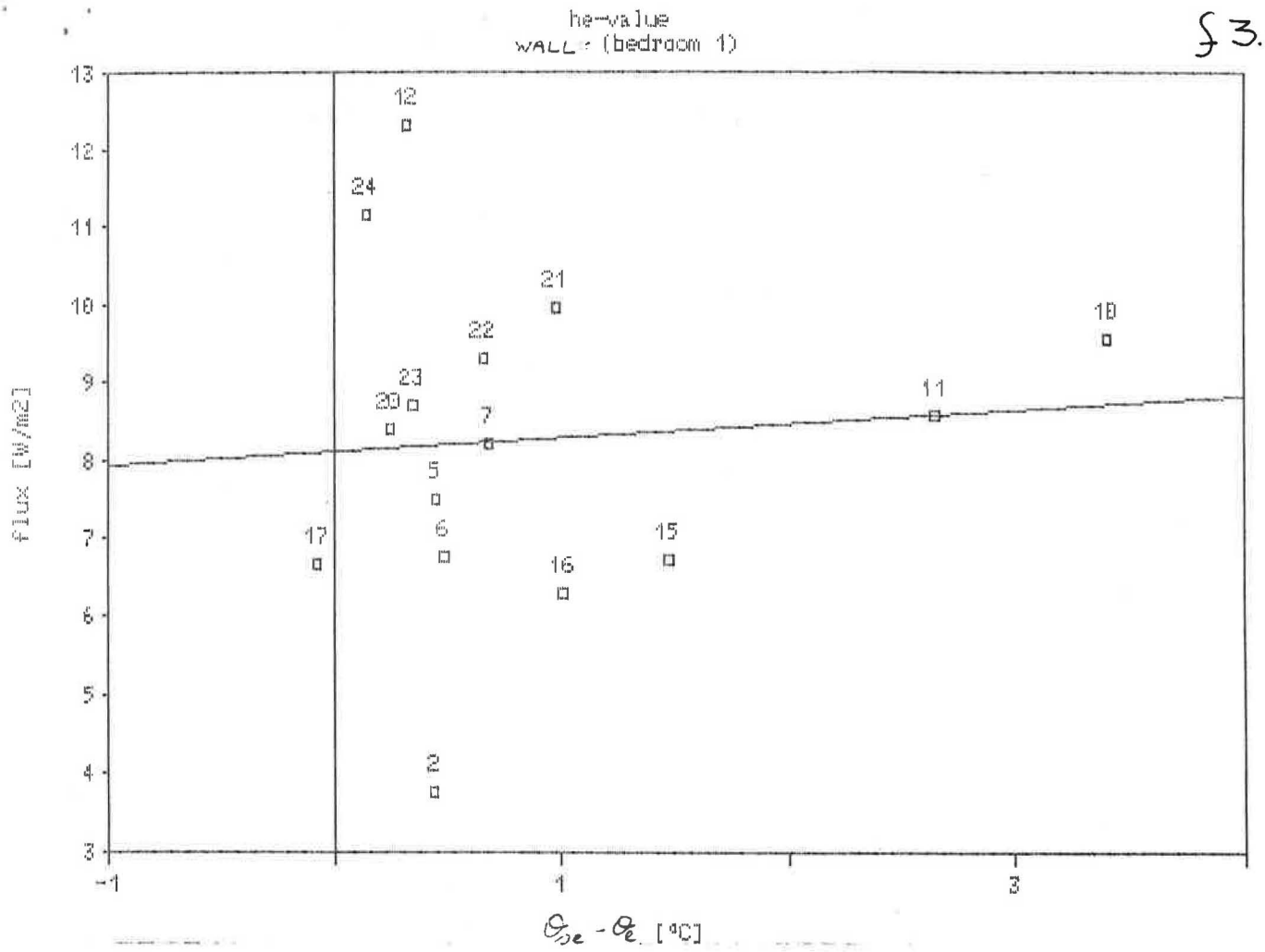
Constant		4.441
Std Err of Y Est		1.565
R Squared		0.493
No. of Observations		15.000
Degrees of Freedom		13.000
X Coefficient(s)	0.732	
Std Err of Coef.	0.206	



Regression Output:

Constant	0.262
Std Err of Y Est	0.993
R Squared	0.796
No. of Observations	15.000
Degrees of Freedom	13.000
X Coefficient(s)	3.716
Std Err of Coef.	0.522

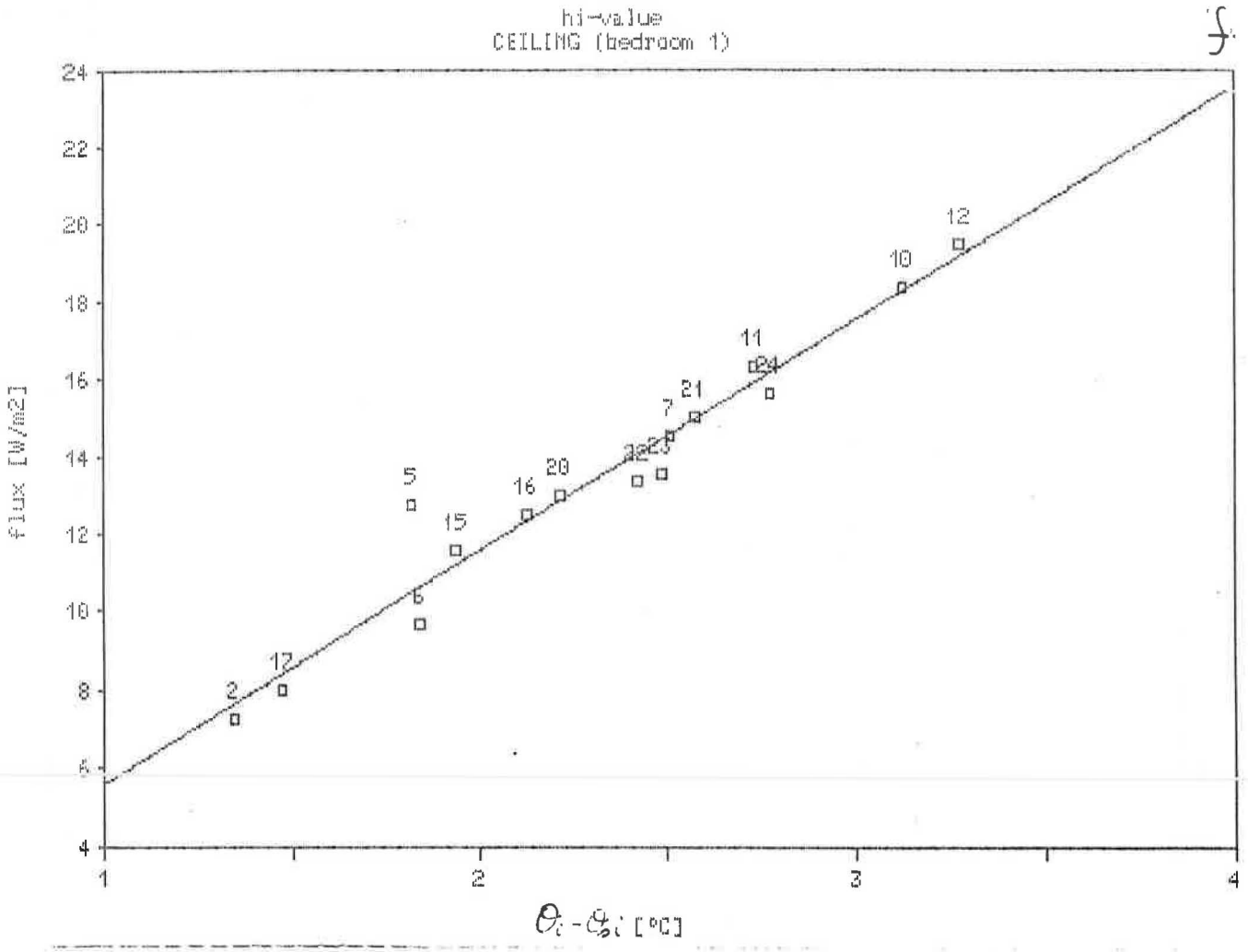
§3.9



Regression Output:

Constant	8.110
Std Err of Y Est	2.190
R Squared	0.007
No. of Observations	15.000
Degrees of Freedom	13.000
X Coefficient(s)	0.181
Std Err of Coef.	0.610

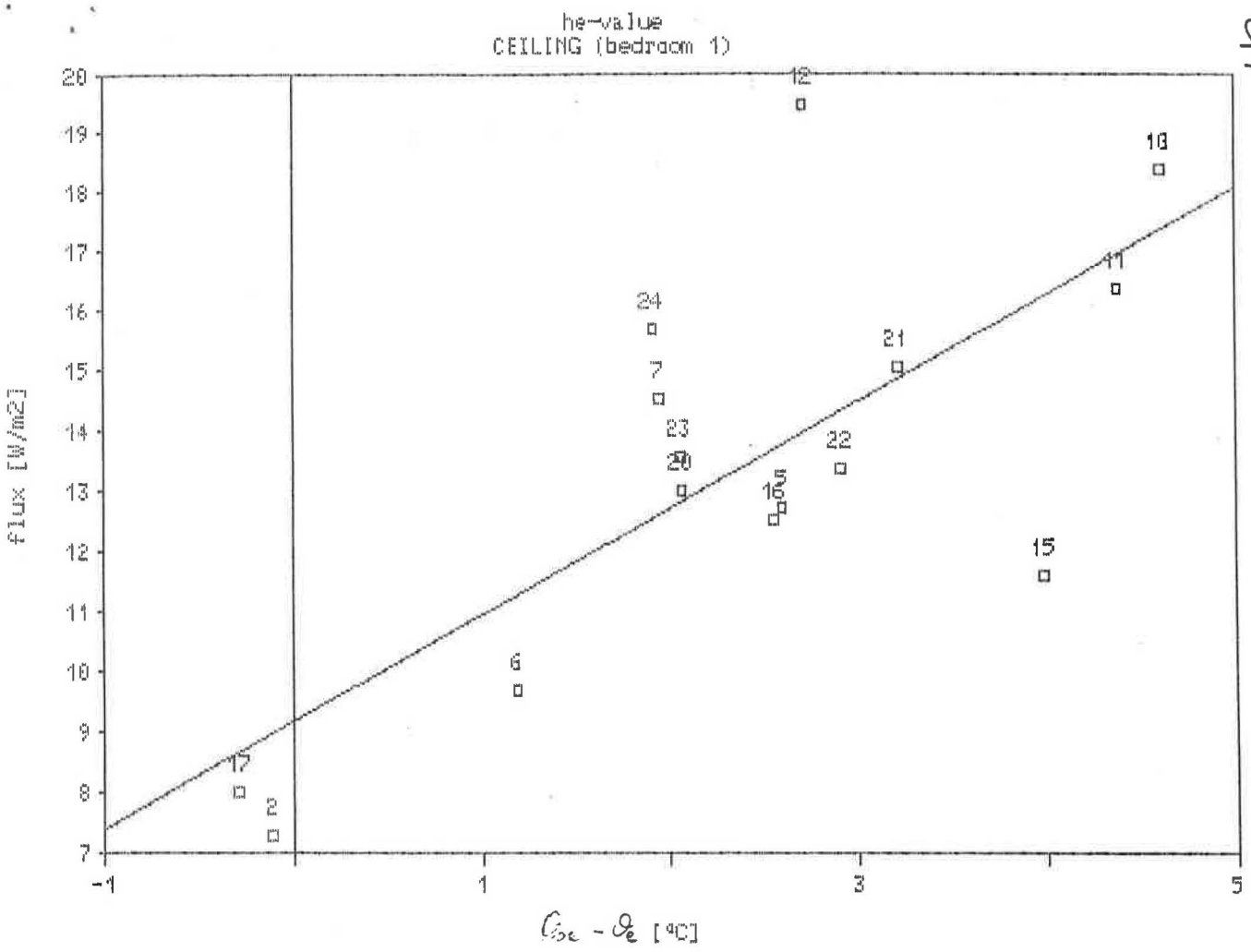
18 ϑ_e temp (outside)	1 ϑ_i temp room1	MEAN flux wall	14 ϑ_{si} temp wall inside	16 ϑ_{se} temp wall outside	Flux*ijk (7,27)	R	hi	he	U
						average: 0.623	3.856	11.552	1.101
11.633	14.575	0.517	13.371	12.075	3.762	0.344	3.124	8.518	1.279
3.844	11.925	1.031	10.621	4.298	7.497	0.843	5.748	16.506	0.928
6.490	11.915	0.932	10.025	6.975	6.776	0.450	3.586	13.960	1.249
4.879	12.894	1.129	10.581	5.558	8.211	0.612	3.551	12.090	1.025
-0.006	12.958	1.317	10.352	3.402	9.576	0.726	3.675	2.810	0.739
-0.006	11.973	1.179	9.752	2.633	8.575	0.830	3.861	3.249	0.716
0.794	11.771	1.694	8.970	1.113	12.318	0.638	4.397	38.589	1.122
3.886	13.093	0.927	11.350	5.350	6.742	0.890	3.867	4.606	0.732
3.004	11.371	0.866	9.610	4.008	6.297	0.890	3.577	6.271	0.753
9.915	12.646	0.919	10.706	9.842	6.680	0.129	3.444	-91.611	2.446
3.152	10.588	1.156	8.240	3.402	8.405	0.576	3.580	33.619	1.130
1.873	11.765	1.371	9.138	2.850	9.966	0.631	3.794	10.200	1.008
1.956	11.346	1.285	9.146	2.619	9.341	0.699	4.246	14.099	0.995
3.249	11.380	1.200	8.900	3.600	8.724	0.608	3.518	24.847	1.073
3.835	12.242	1.537	9.360	3.983	11.171	0.481	3.877	75.525	1.329



Regression Output:

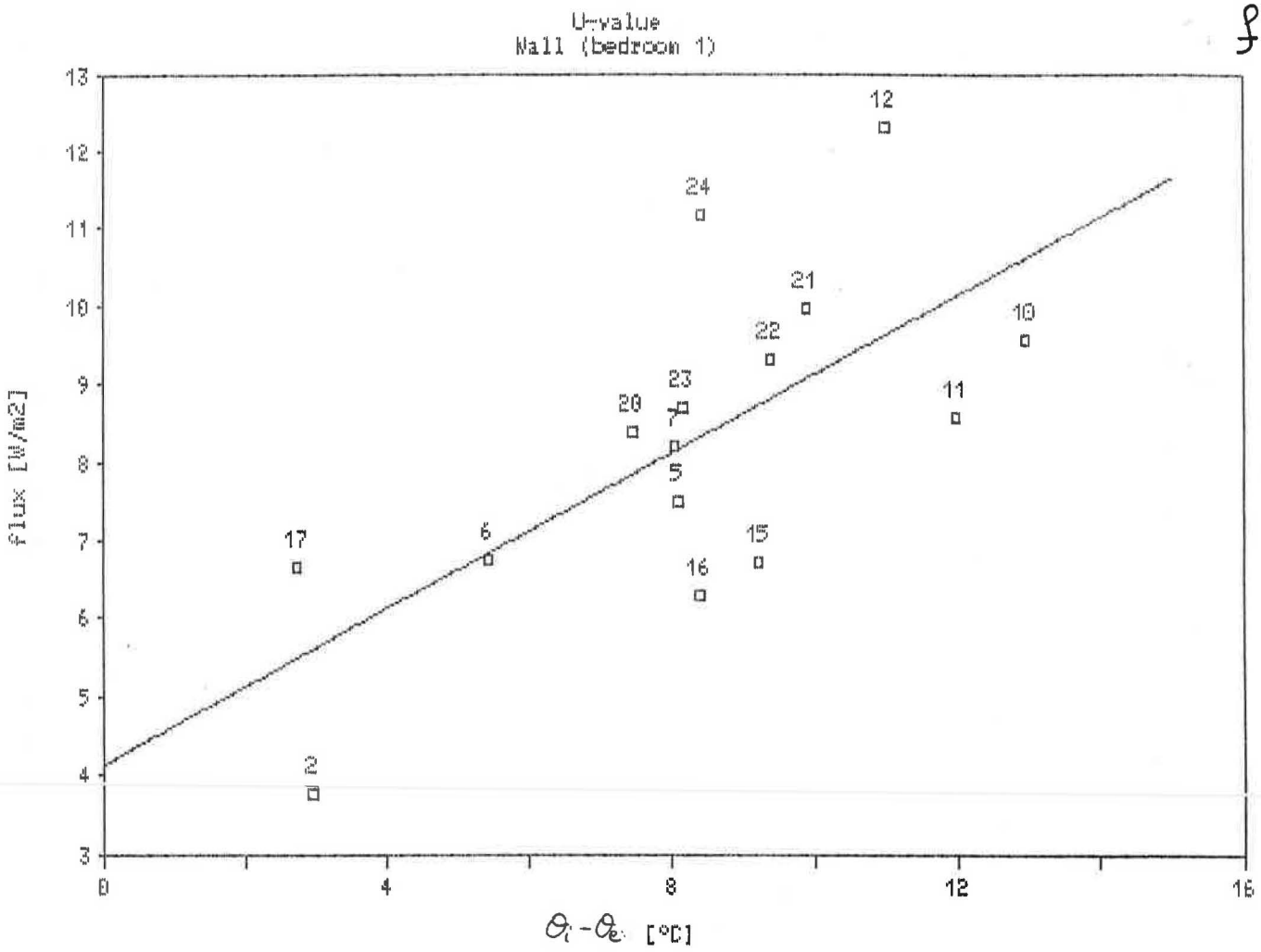
Constant	-0.398
Std Err of Y Est	0.795
R Squared	0.950
No. of Observations	15.000
Degrees of Freedom	13.000
X Coefficient(s)	5.992
Std Err of Coef.	0.380

18 θ_e temp (outside)	1 θ_i temp room1	MEAN flux ceiling	15 θ_{si} temp ceiling inside	17 θ_{se} temp ceiling outside	Flux*ijk (6,79)	R	hi	he
						average: 0.263	(5.806)	~~-1.420~~
11.633	14.575	1.071	13.233	11.525	7.272	0.235	5.420	-67.122
3.844	11.925	1.876	10.104	6.442	12.738	0.288	6.996	4.903
6.490	11.915	1.429	10.071	7.679	9.702	0.247	5.262	8.155
4.879	12.894	2.140	10.390	6.819	14.532	0.246	5.803	7.492
-0.006	12.958	2.711	9.838	4.610	18.405	0.284	5.898	3.987
-0.006	11.973	2.412	9.246	4.375	16.376	0.297	6.005	3.738
0.794	11.771	2.871	8.505	3.497	19.497	0.257	5.969	7.212
3.886	13.093	1.709	11.155	7.868	11.607	0.283	5.986	2.915
3.004	11.371	1.845	9.246	5.548	12.526	0.295	5.895	4.924
9.915	12.646	1.177	11.175	9.629	7.989	0.193	5.432	-27.992
3.152	10.588	1.919	8.373	5.215	13.031	0.242	5.884	6.318
1.873	11.765	2.219	9.194	5.081	15.069	0.273	5.862	4.697
1.956	11.346	1.972	8.927	4.860	13.390	0.304	5.536	4.611
3.249	11.380	2.000	8.900	5.300	13.580	0.265	5.476	6.621
3.835	12.242	2.311	9.475	5.740	15.690	0.238	5.671	8.240



Regression Output:

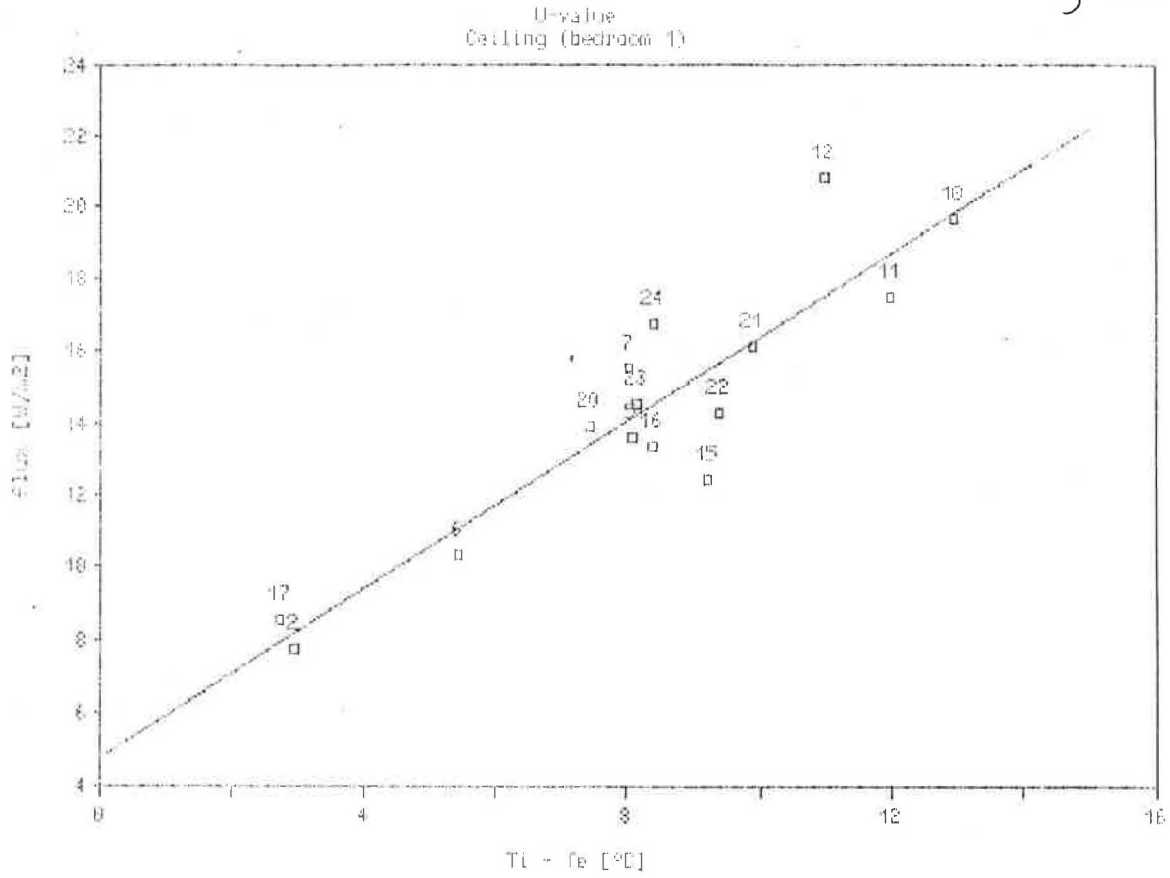
Constant	9.196
Std Err of Y Est	2.430
R Squared	0.536
No. of Observations	15.000
Degrees of Freedom	13.000
X Coefficient(s)	1.778
Std Err of Coef.	0.459



Regression Output:

Constant	4.134
Std Err of Y Est	1.611
R Squared	0.463
No. of Observations	15.000
Degrees of Freedom	13.000
X Coefficient(s)	0.500
Std Err of Coef.	0.150

§ 3.13


U-value
Ceiling (bedroom 1)
Qloss [W/m2]
Ti - Te [°C]
0
4
8
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16
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16
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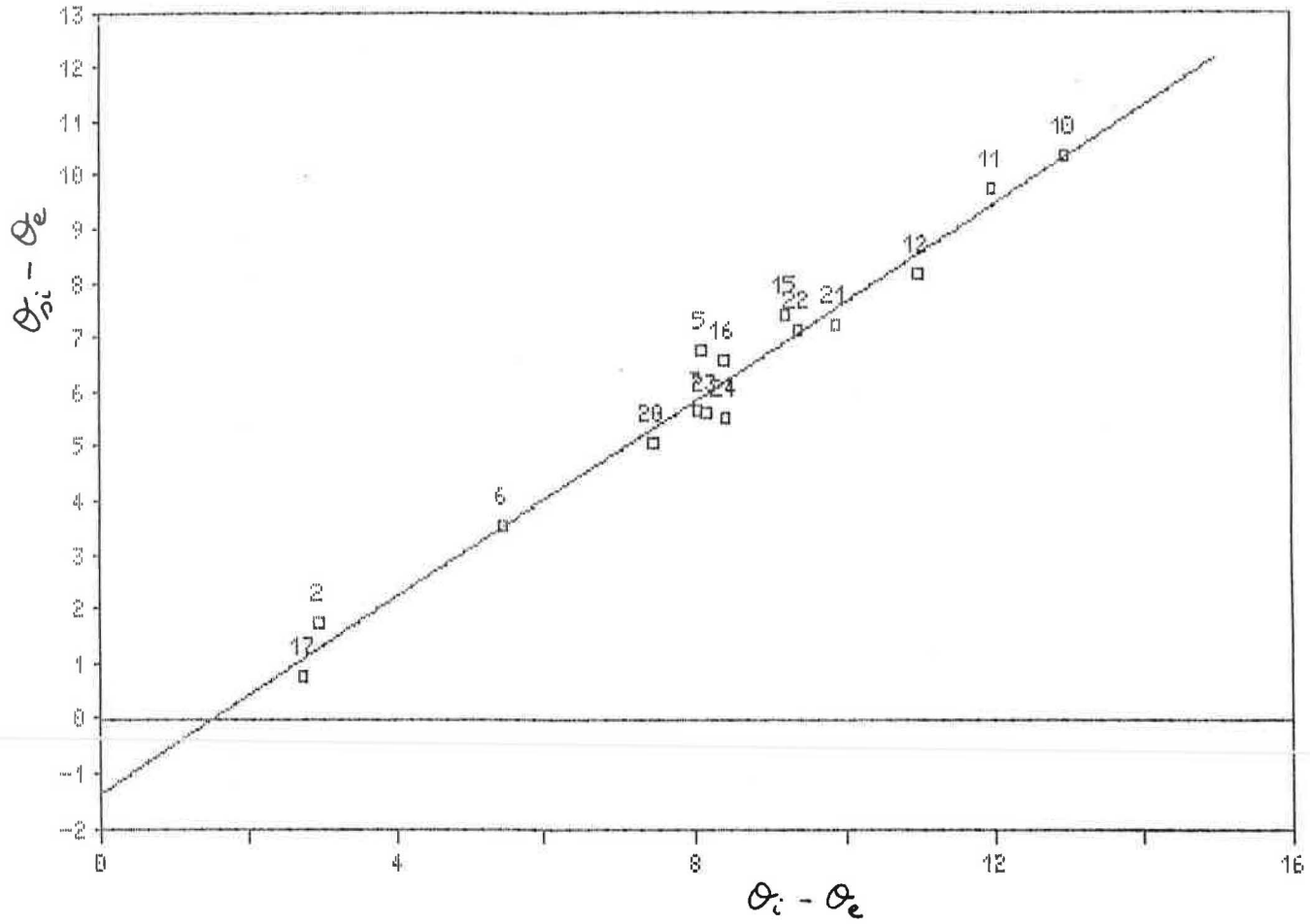
§ 3.14

temperature coefficients
WALL (bedroom 1)



$$Y = A_1 X + A_0$$

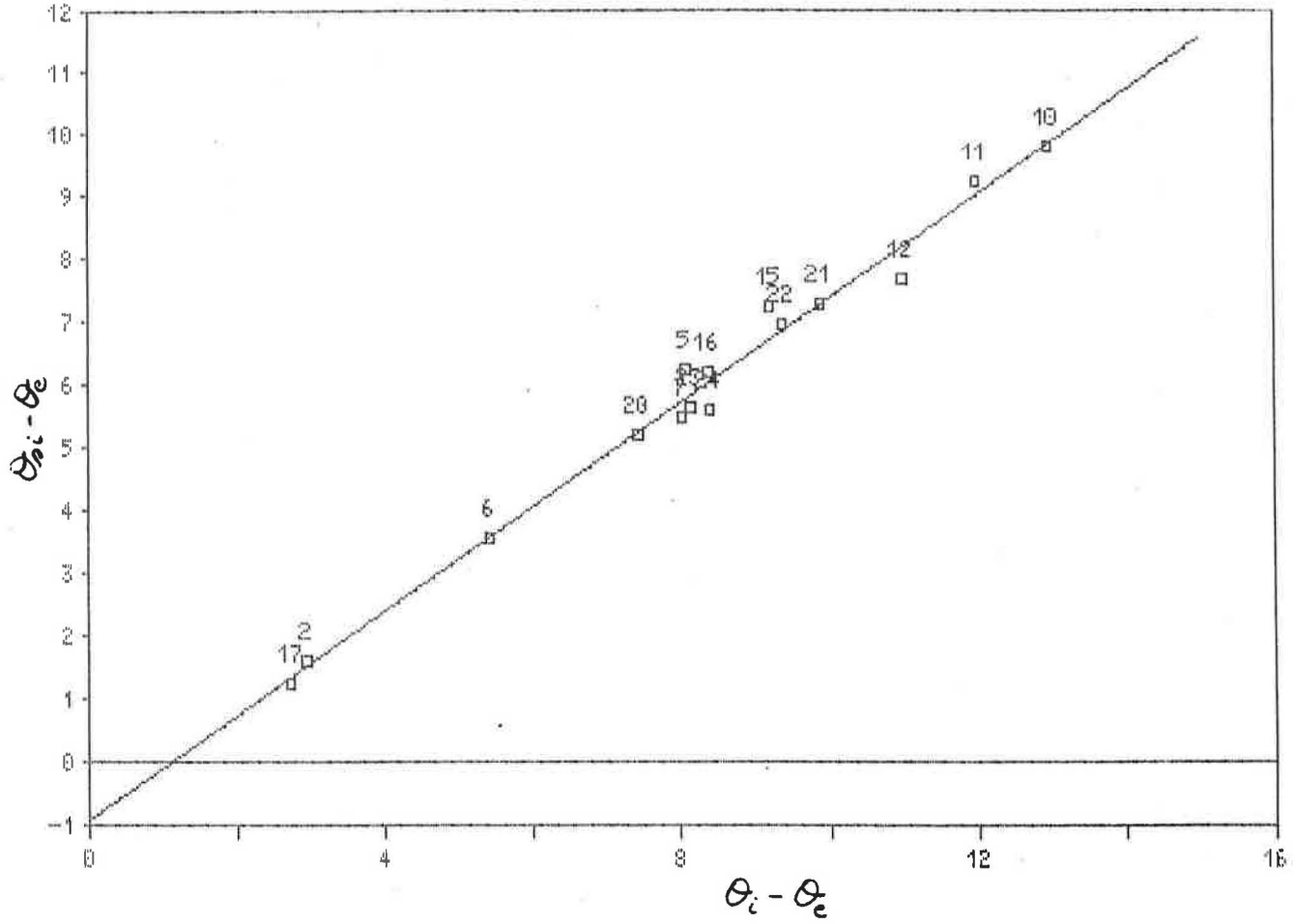
Regression Output:

Constant	-1.332	$= A_0$
Std'Err of Y Est	0.436	
R Squared	0.974	
No. of Observations	15.000	
Degrees of Freedom	13.000	
X Coefficient(s)	0.901	$= A_1$
Std Err of Coef.	0.040	

θ_e 18 temp (buiten)	θ_i 1 temp kamer 1	θ_{si} 14 temp wall inside		$\theta_i - \theta_e$	$\theta_{si} - \theta_e$	$\tau =$
11.633	14.575	13.371	average	8.263	6.108	0.705
3.844	11.925	10.621	DAY 2	2.942	1.738	0.591
6.490	11.915	10.025	DAY 5	8.081	6.777	0.839
4.879	12.894	10.581	DAY 6	5.425	3.535	0.652
-0.006	12.958	10.352	DAY 7	8.015	5.702	0.711
-0.006	11.973	9.752	DAY 10	12.965	10.359	0.799
0.794	11.771	8.970	DAY 11	11.979	9.758	0.815
3.886	13.093	11.350	DAY 12	10.977	8.176	0.745
3.004	11.371	9.610	DAY 15	9.207	7.464	0.811
9.915	12.646	10.706	DAY 16	8.367	6.606	0.790
3.152	10.588	8.240	DAY 17	2.731	0.792	0.290
1.873	11.765	9.138	DAY 20	7.435	5.088	0.684
1.956	11.346	9.146	DAY 21	9.892	7.265	0.734
3.249	11.380	8.900	DAY 22	9.390	7.190	0.766
			DAY 23	8.131	5.651	0.695
3.835	12.242	9.360	DAY 24	8.406	5.525	0.657
				0.000		

§ 3.15

temperature coefficients
CEILING (bedroom 1)



θ_e 18 temp (buiten)	θ_i 1 temp kamer 1	θ_{si} 15 temp ceiling inside
11.633	14.575	13.233
3.844	11.925	10.104
6.490	11.915	10.071
4.879	12.894	10.390
-0.006	12.958	9.838
-0.006	11.973	9.246
0.794	11.771	8.505
3.886	13.093	11.155
3.004	11.371	9.246
9.915	12.646	11.175
3.152	10.588	8.373
1.873	11.765	9.194
1.956	11.346	8.927
3.249	11.380	8.900
3.835	12.242	9.475

	$\theta_i - \theta_e$	$\theta_{si} - \theta_e$	$\tau =$
average	8.263.	5.955	0.697
DAY 2	2.942	1.600	0.544
DAY 5	8.081	6.260	0.775
DAY 6	5.425	3.581	0.660
DAY 7	8.015	5.510	0.688
DAY 10	12.965	9.844	0.759
DAY 11	11.979	9.252	0.772
DAY 12	10.977	7.711	0.702
DAY 15	9.207	7.268	0.789
DAY 16	8.367	6.242	0.746
DAY 17	2.731	1.260	0.461
DAY 20	7.435	5.221	0.702
DAY 21	9.892	7.321	0.740
DAY 22	9.390	6.971	0.742
DAY 23	8.131	5.651	0.695
DAY 24	8.406	5.640	0.671

Regression Output:

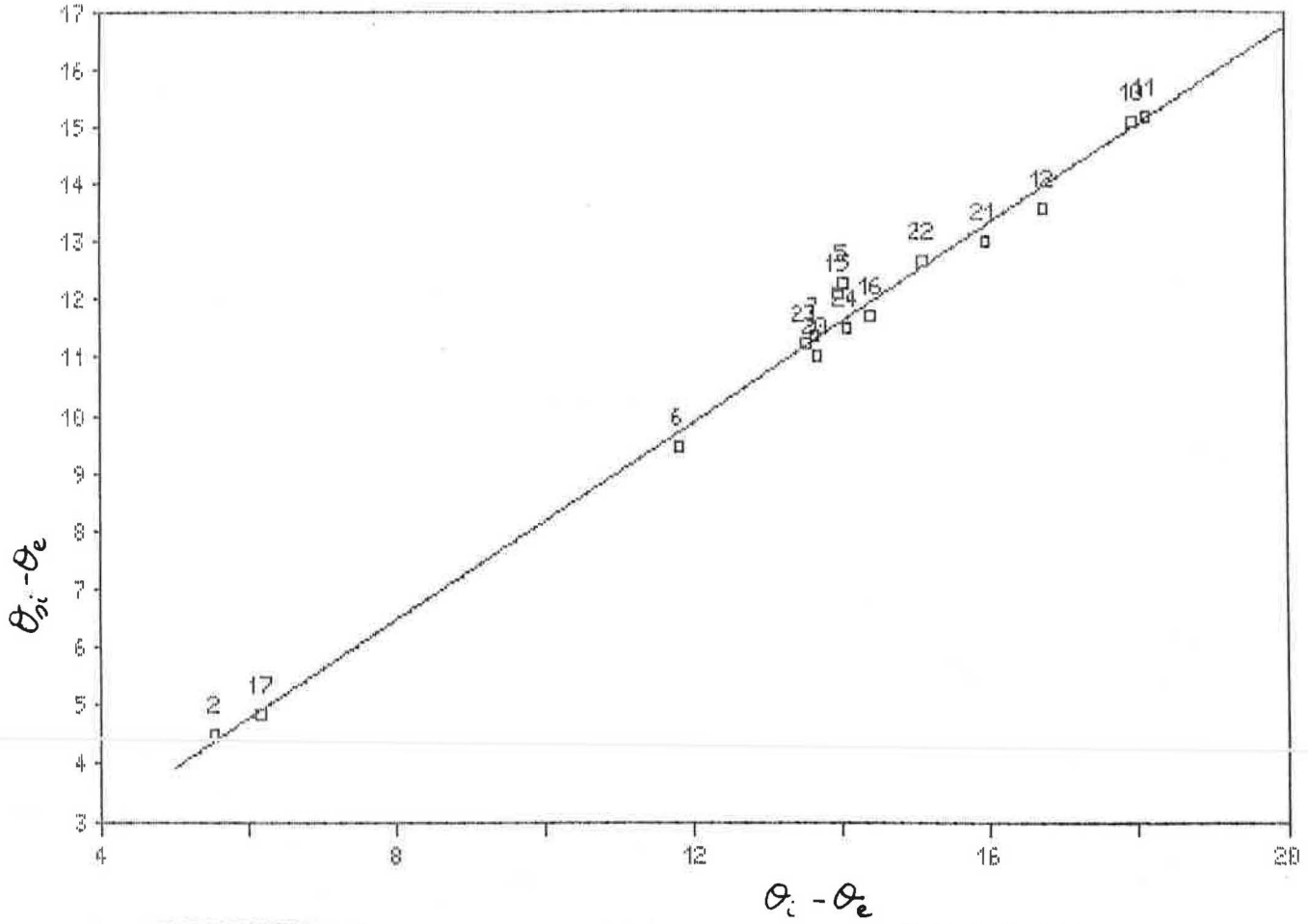
Constant		-0.923.
Std Err of Y Est		0.295
R Squared		0.986
No. of Observations		15.000
Degrees of Freedom		13.000
X Coefficient(s)	0.832	
Std Err of Coef.	0.027	

$$\theta_{si} - \theta_e = a(\theta_i - \theta_e) + b$$

$$\tau = \frac{\theta_{si} - \theta_e}{\theta_i - \theta_e} = \frac{a(\theta_i - \theta_e)}{\theta_i - \theta_e} + \frac{b}{\theta_i - \theta_e}$$

$$= a + \frac{b}{\theta_i - \theta_e}$$

temperature coefficients
LINTEL (down)

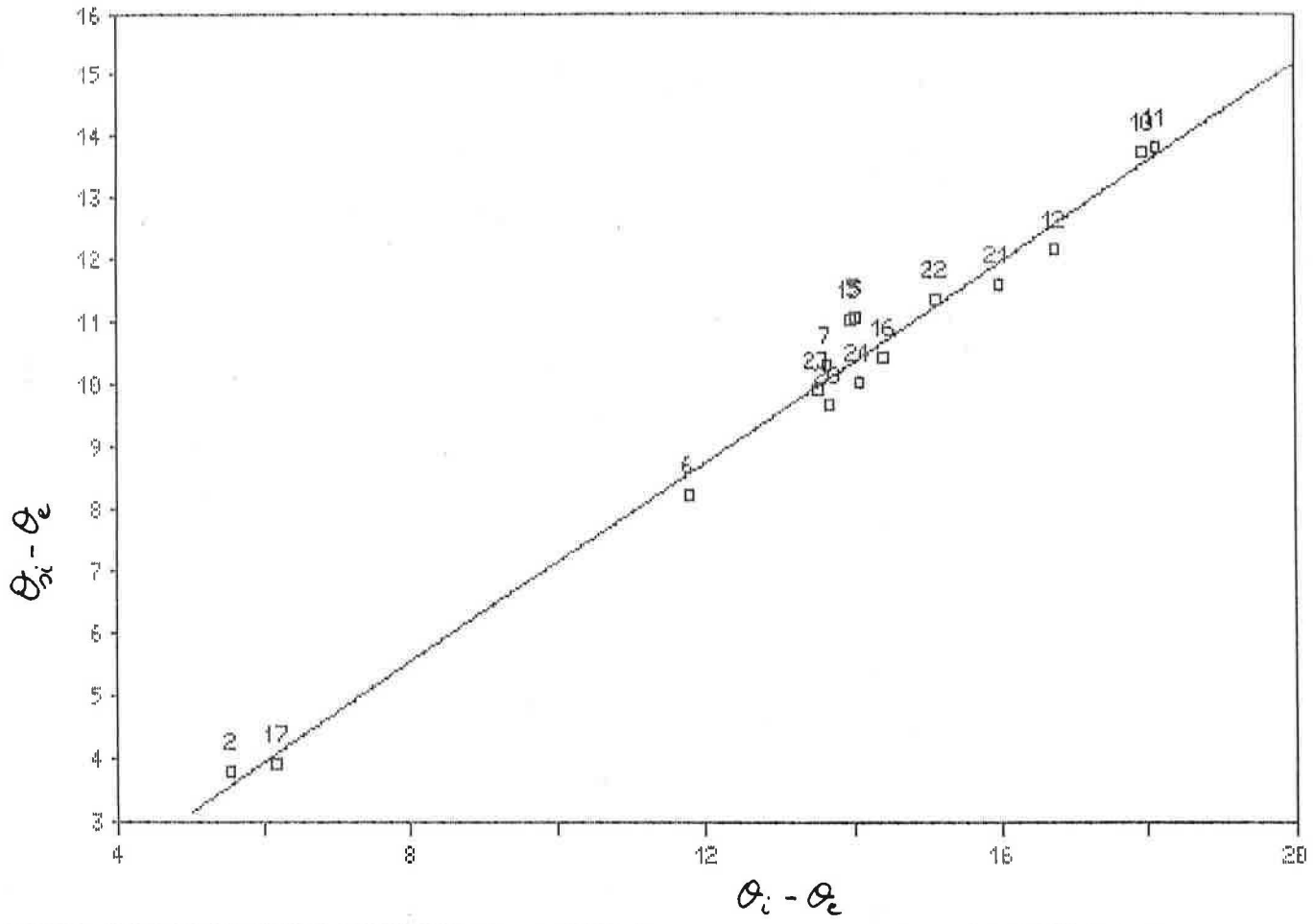


Regression Output:

Constant	-0.285
Std Err of Y Est	0.298
R Squared	0.991
No. of Observations	15.000
Degrees of Freedom	13.000
X Coefficient(s)	0.850
Std Err of Coef.	0.022

18 ϑ_e temp (buiten)	9 ϑ_i temp living	22 ϑ_{si} temp lintel down		$\vartheta_i - \vartheta_e$	$\vartheta_{si} - \vartheta_e$	τ
			average	13.645	11.318	0.827
			DAY 2	5.525	4.498	0.814
			DAY 5	14.023	12.269	0.875
11.633	17.158	16.131	DAY 6	11.767	9.465	0.804
3.844	17.867	16.113	DAY 7	13.633	11.385	0.835
6.490	18.256	15.954	DAY 10	17.965	15.104	0.841
4.879	18.513	16.265	DAY 11	18.123	15.206	0.839
-0.006	17.958	15.098	DAY 12	16.746	13.605	0.812
-0.006	18.117	15.200	DAY 15	13.973	12.139	0.869
0.794	17.540	14.399	DAY 16	14.404	11.738	0.815
3.886	17.859	16.025	DAY 17	6.150	4.846	0.788
3.004	17.408	14.742	DAY 20	13.665	11.056	0.809
9.915	16.065	14.760	DAY 21	15.967	13.046	0.817
3.152	16.817	14.208	DAY 22	15.131	12.660	0.837
1.873	17.840	14.919	DAY 23	13.531	11.251	0.831
1.956	17.088	14.617	DAY 24	14.079	11.496	0.817
3.249	16.780	14.500				
3.835	17.915	15.331				

temperature coefficients
LINTEL (middle)

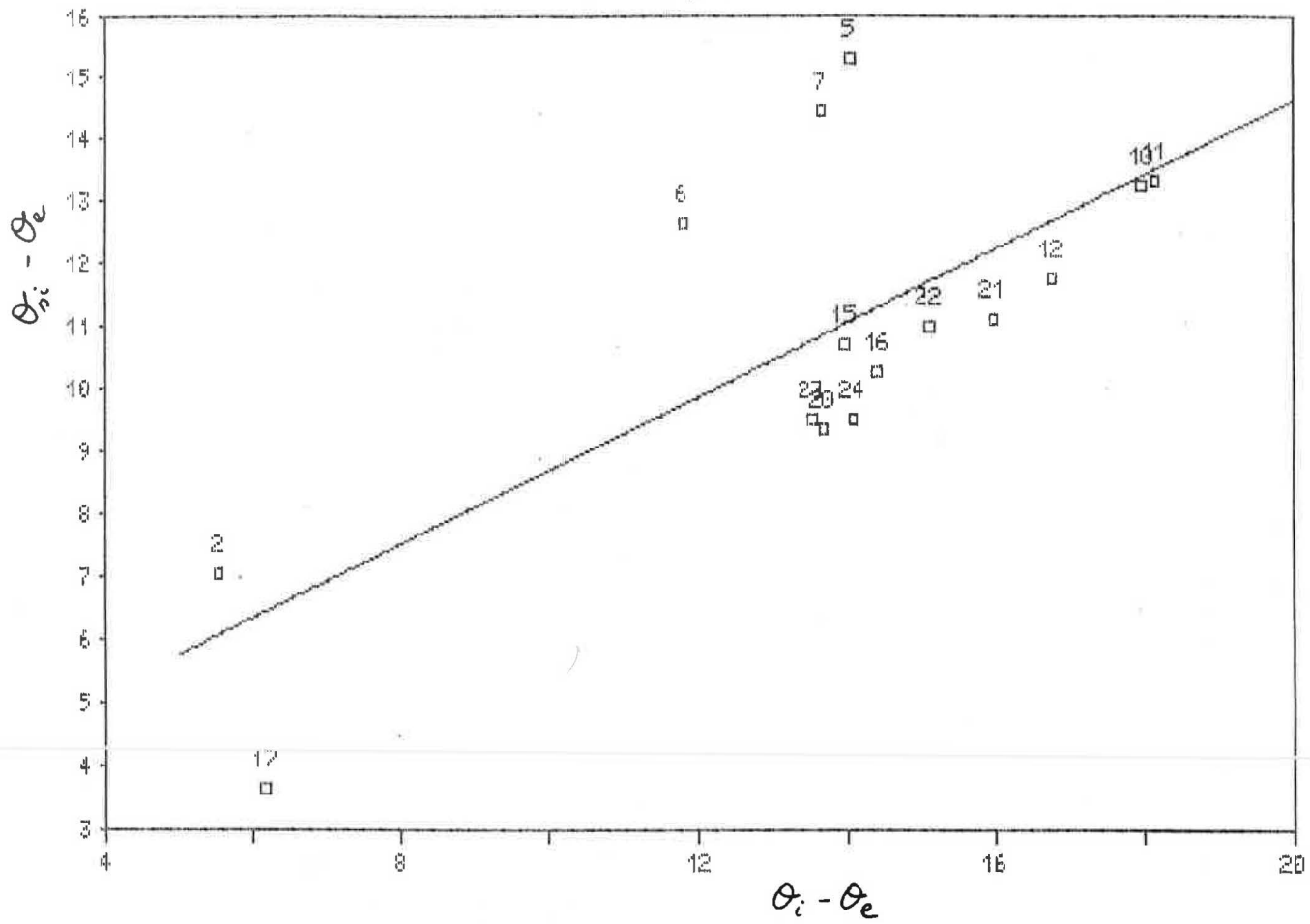


θ_e 18 temp (buiten)	θ_i 9 temp living	θ_{si} 21 temp lintel middle
11.633	17.158	15.444
3.844	17.867	14.942
6.490	18.256	14.754
4.879	18.513	15.206
-0.006	17.958	13.733
-0.006	18.117	13.838
0.794	17.540	12.988
3.886	17.859	14.934
3.004	17.408	13.463
9.915	16.065	13.846
3.152	16.817	12.869
1.873	17.840	13.515
1.956	17.088	13.344
3.249	16.780	13.200
3.835	17.915	13.915

	$\theta_i - \theta_e$	$\theta_{si} - \theta_e$	$\tau = \frac{\theta_{si} - \theta_e}{\theta_i - \theta_e}$
average	13.645	10.099	0.733
DAY 2	5.525	3.810	0.690
DAY 5	14.023	11.098	0.791
DAY 6	11.767	8.265	0.702
DAY 7	13.633	10.327	0.757
DAY 10	17.965	13.740	0.765
DAY 11	18.123	13.844	0.764
DAY 12	16.746	12.194	0.728
DAY 15	13.973	11.048	0.791
DAY 16	14.404	10.458	0.726
DAY 17	6.150	3.931	0.639
DAY 20	13.665	9.717	0.711
DAY 21	15.967	11.642	0.729
DAY 22	15.131	11.388	0.753
DAY 23	13.531	9.951	0.735
DAY 24	14.079	10.079	0.716

Regression Output:

Constant	-0.825
Std Err of Y Est	0.379
R Squared	0.984
No. of Observations	15.000
Degrees of Freedom	13.000
X Coefficient(s)	0.801
Std Err of Coef.	0.028



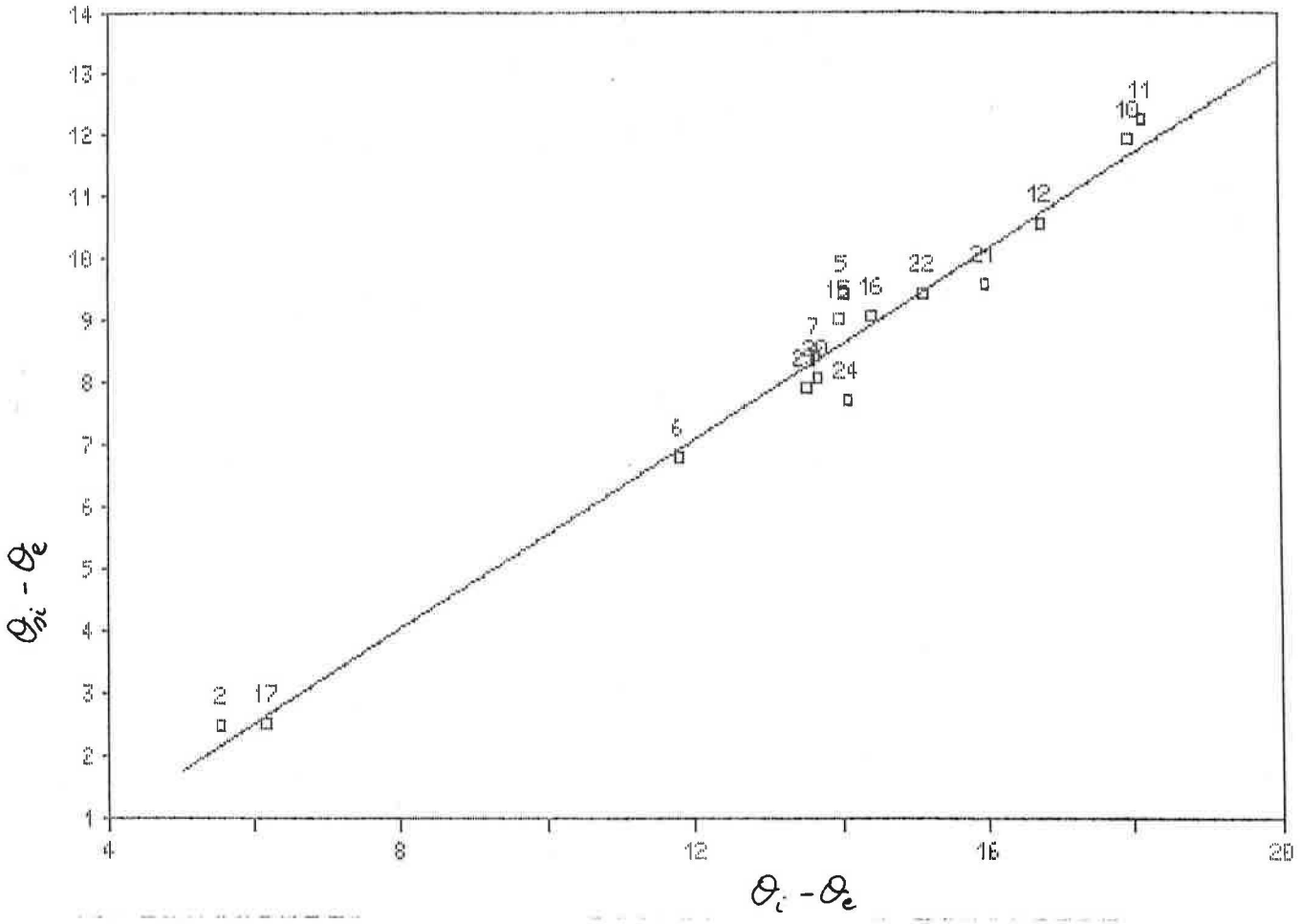
Regression Output:

Constant	2.830
Std Err of Y Est	2.115
R Squared	0.522
No. of Observations	15.000
Degrees of Freedom	13.000
X Coefficient(s)	0.590
Std Err of Coef.	0.156

θ_e 18 temp (buiten)	θ_i 9 temp living	θ_{si} 20 temp lintel up
11.633	17.158	18.704
3.844	17.867	19.142
6.490	18.256	19.156
4.879	18.513	19.342
-0.006	17.958	13.272
-0.006	18.117	13.358
0.794	17.540	12.590
3.886	17.859	14.630
3.004	17.408	13.304
9.915	16.065	13.540
3.152	16.817	12.542
1.873	17.840	13.006
1.956	17.088	12.963
3.249	16.780	12.800
3.835	17.915	13.367

	$\theta_i - \theta_e$	$\theta_{si} - \theta_e$	$\tau = \frac{\theta_{si} - \theta_e}{\theta_i - \theta_e}$
average	13.645	10.881	0.817
DAY 2	5.525	7.071	1.280
DAY 5	14.023	15.298	1.091
DAY 6	11.767	12.667	1.076
DAY 7	13.633	14.463	1.061
DAY 10	17.965	13.278	0.739
DAY 11	18.123	13.365	0.737
DAY 12	16.746	11.796	0.704
DAY 15	13.973	10.743	0.769
DAY 16	14.404	10.300	0.715
DAY 17	6.150	3.625	0.589
DAY 20	13.665	9.390	0.687
DAY 21	15.967	11.133	0.697
DAY 22	15.131	11.006	0.727
DAY 23	13.531	9.551	0.706
DAY 24	14.079	9.531	0.677

temperature coefficients
WALL (floor)



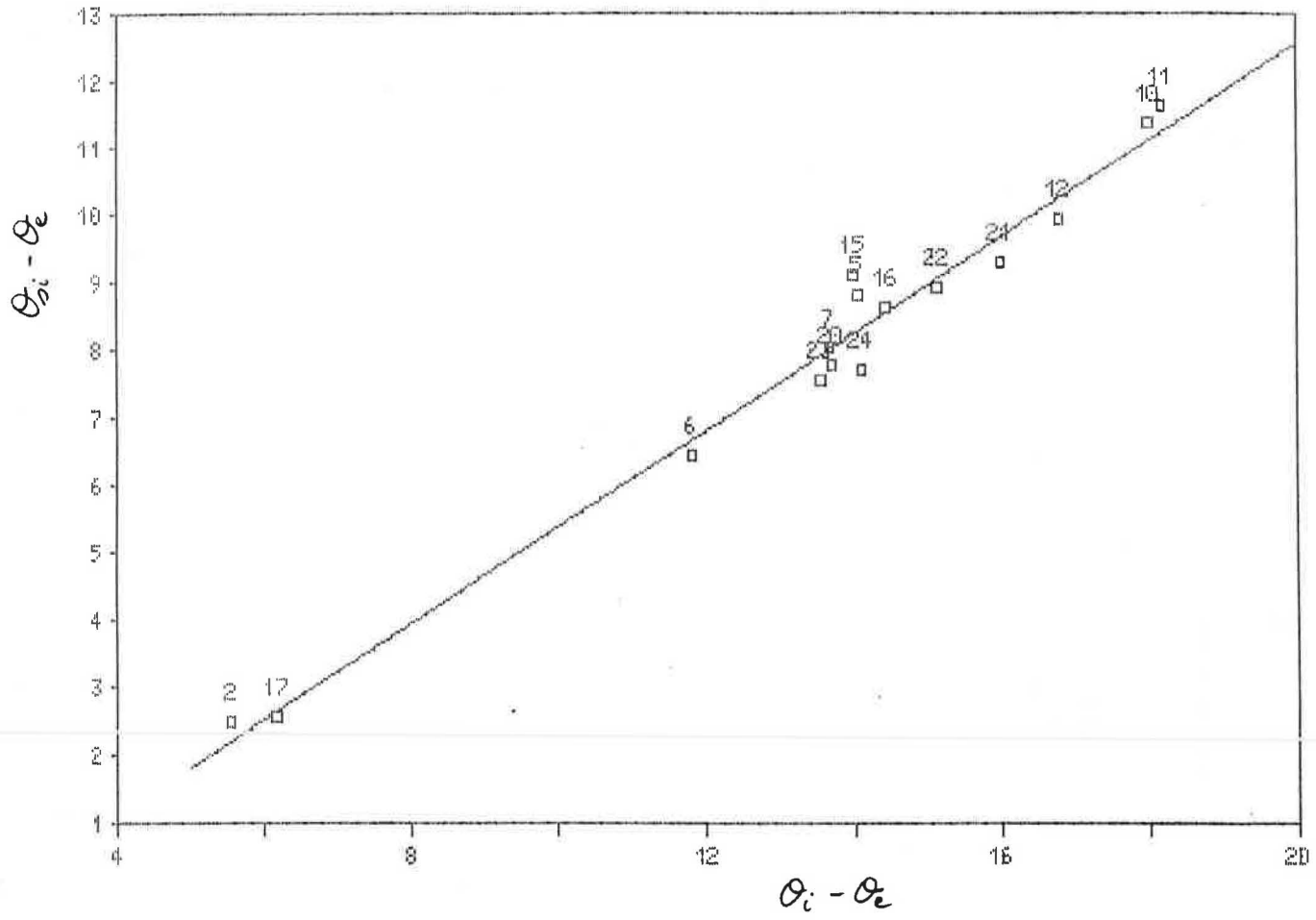
18 ϑ_e temp (buiten)	9 ϑ_i temp living	23 ϑ_{si} temp wall floor
11.633	17.158	14.135
3.844	17.867	13.310
6.490	18.256	13.302
4.879	18.513	13.350
-0.006	17.958	11.958
-0.006	18.117	12.252
0.794	17.540	11.395
3.886	17.859	12.968
3.004	17.408	12.090
9.915	16.065	12.423
3.152	16.817	11.246
1.873	17.840	11.488
1.956	17.088	11.423
3.249	16.780	11.200
3.835	17.915	11.563

	$\vartheta_i - \vartheta_e$	$\vartheta_{si} - \vartheta_e$	τ
average	13.645	8.374	0.597
DAY 2	5.525	2.502	0.453
DAY 5	14.023	9.467	0.675
DAY 6	11.767	6.813	0.579
DAY 7	13.633	8.471	0.621
DAY 10	17.965	11.965	0.666
DAY 11	18.123	12.258	0.676
DAY 12	16.746	10.601	0.633
DAY 15	13.973	9.082	0.650
DAY 16	14.404	9.085	0.631
DAY 17	6.150	2.508	0.408
DAY 20	13.665	8.094	0.592
DAY 21	15.967	9.615	0.602
DAY 22	15.131	9.467	0.626
DAY 23	13.531	7.951	0.588
DAY 24	14.079	7.727	0.549

Regression Output:

Constant	-2.077
Std Err of Y Est	0.463
R Squared	0.975
No. of Observations	15.000
Degrees of Freedom	13.000
X Coefficient(s)	0.766
Std Err of Coef.	0.034

temperature coefficients
WALL (down)



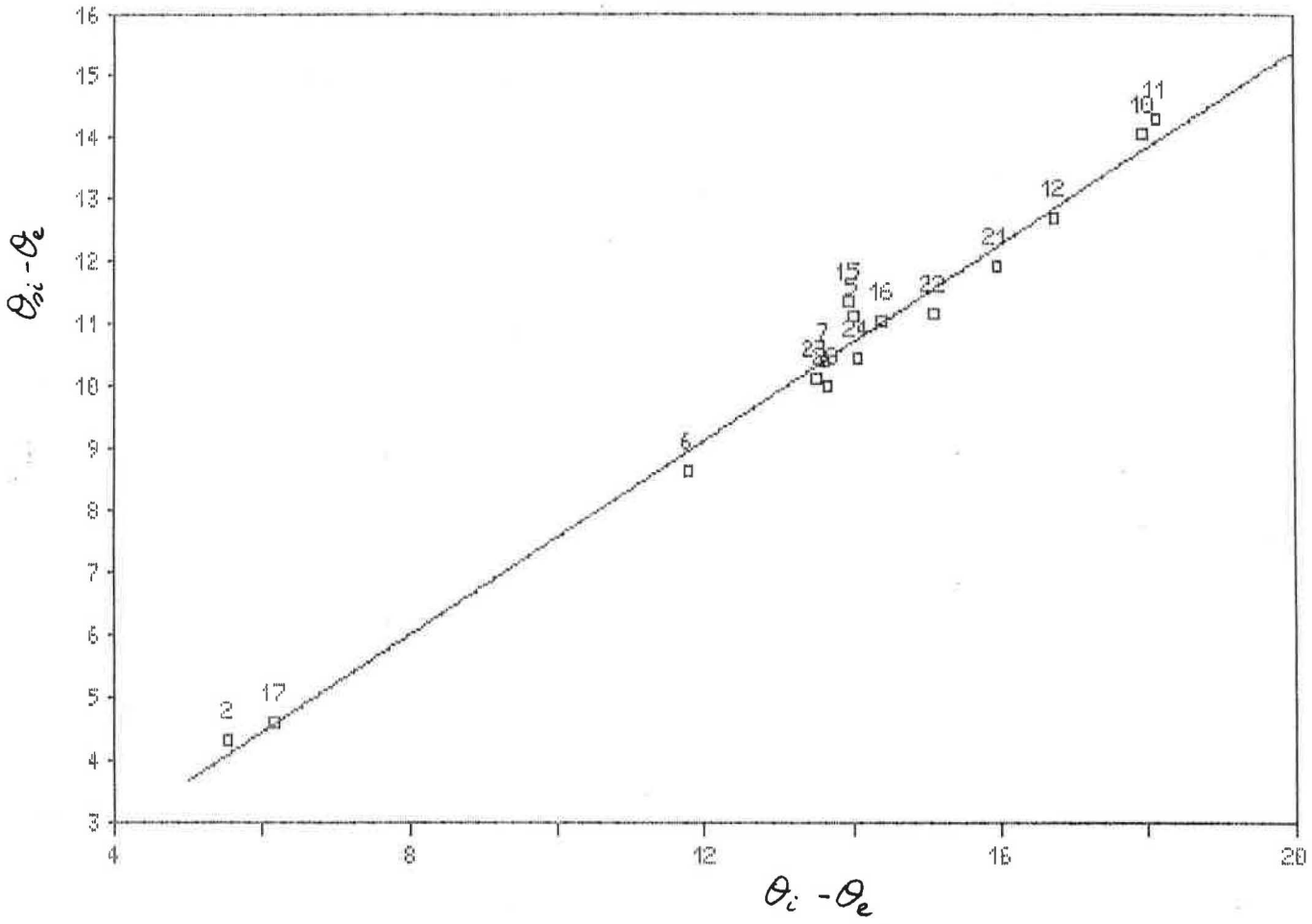
ϑ_e 18 temp (buiten)	ϑ_i 9 temp living	ϑ_{si} 25 temp wall down
11.633	17.158	14.100
3.844	17.867	12.675
6.490	18.256	12.935
4.879	18.513	12.929
-0.006	17.958	11.371
-0.006	18.117	11.619
0.794	17.540	10.703
3.886	17.859	12.980
3.004	17.408	11.629
9.915	16.065	12.488
3.152	16.817	10.948
1.873	17.840	11.175
1.956	17.088	10.877
3.249	16.780	10.800
3.835	17.915	11.544

	$\vartheta_i - \vartheta_e$	$\vartheta_{si} - \vartheta_e$	τ
average	13.645	8.018	0.573
DAY 2	5.525	2.467	0.446
DAY 5	14.023	8.831	0.630
DAY 6	11.767	6.446	0.548
DAY 7	13.633	8.050	0.590
DAY 10	17.965	11.377	0.633
DAY 11	18.123	11.625	0.641
DAY 12	16.746	9.909	0.592
DAY 15	13.973	9.093	0.651
DAY 16	14.404	8.625	0.599
DAY 17	6.150	2.573	0.418
DAY 20	13.665	7.796	0.571
DAY 21	15.967	9.302	0.583
DAY 22	15.131	8.921	0.590
DAY 23	13.531	7.551	0.558
DAY 24	14.079	7.708	0.547

Regression Output:

Constant	-1.751
Std Err of Y Est	0.414
R Squared	0.977
No. of Observations	15.000
Degrees of Freedom	13.000
X Coefficient(s)	0.716
Std Err of Coef.	0.031

§ 3.21



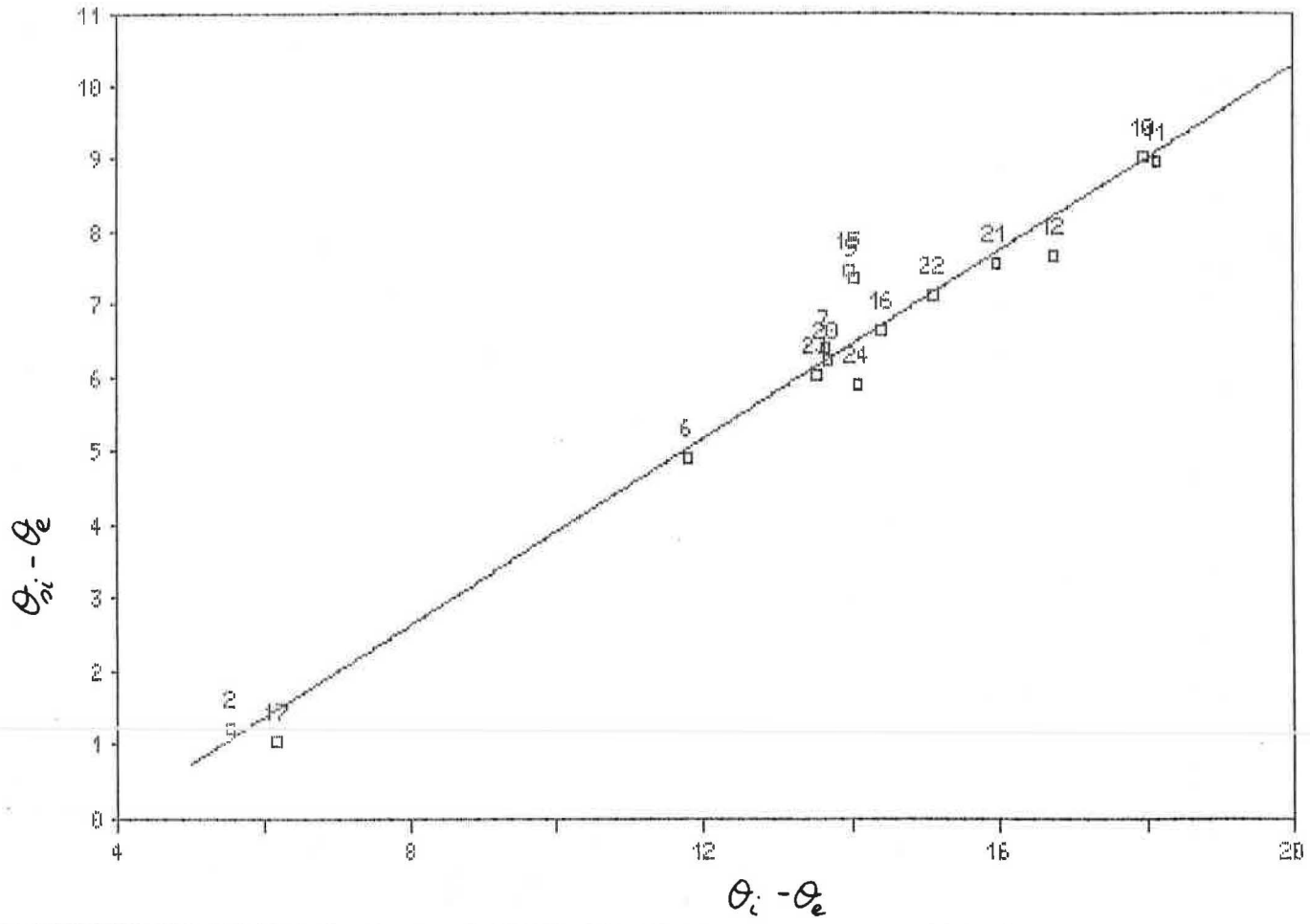
Regression Output:

Constant	-0.219
Std Err of Y Est	0.353
R Squared	0.986
No. of Observations	15.000
Degrees of Freedom	13.000
X Coefficient(s)	0.781
Std Err of Coef.	0.026

18 ϑ_e temp (buiten)	9 ϑ_i temp living	24 ϑ_{si} temp wall middle
11.633	17.158	15.948
3.844	17.867	14.996
6.490	18.256	15.129
4.879	18.513	15.321
-0.006	17.958	14.071
-0.006	18.117	14.310
0.794	17.540	13.511
3.886	17.859	15.286
3.004	17.408	14.058
9.915	16.065	14.538
3.152	16.817	13.183
1.873	17.840	13.821
1.956	17.088	13.160
3.249	16.780	13.400
3.835	17.915	14.317

	$\vartheta_i - \vartheta_e$	$\vartheta_{si} - \vartheta_e$	τ
average	13.645	10.437	0.764
DAY 2	5.525	4.315	0.781
DAY 5	14.023	11.152	0.795
DAY 6	11.767	8.640	0.734
DAY 7	13.633	10.442	0.766
DAY 10	17.965	14.077	0.784
DAY 11	18.123	14.317	0.790
DAY 12	16.746	12.717	0.759
DAY 15	13.973	11.400	0.816
DAY 16	14.404	11.054	0.767
DAY 17	6.150	4.623	0.752
DAY 20	13.665	10.031	0.734
DAY 21	15.967	11.948	0.748
DAY 22	15.131	11.204	0.740
DAY 23	13.531	10.151	0.750
DAY 24	14.079	10.481	0.744

f. 3.22



Regression Output:

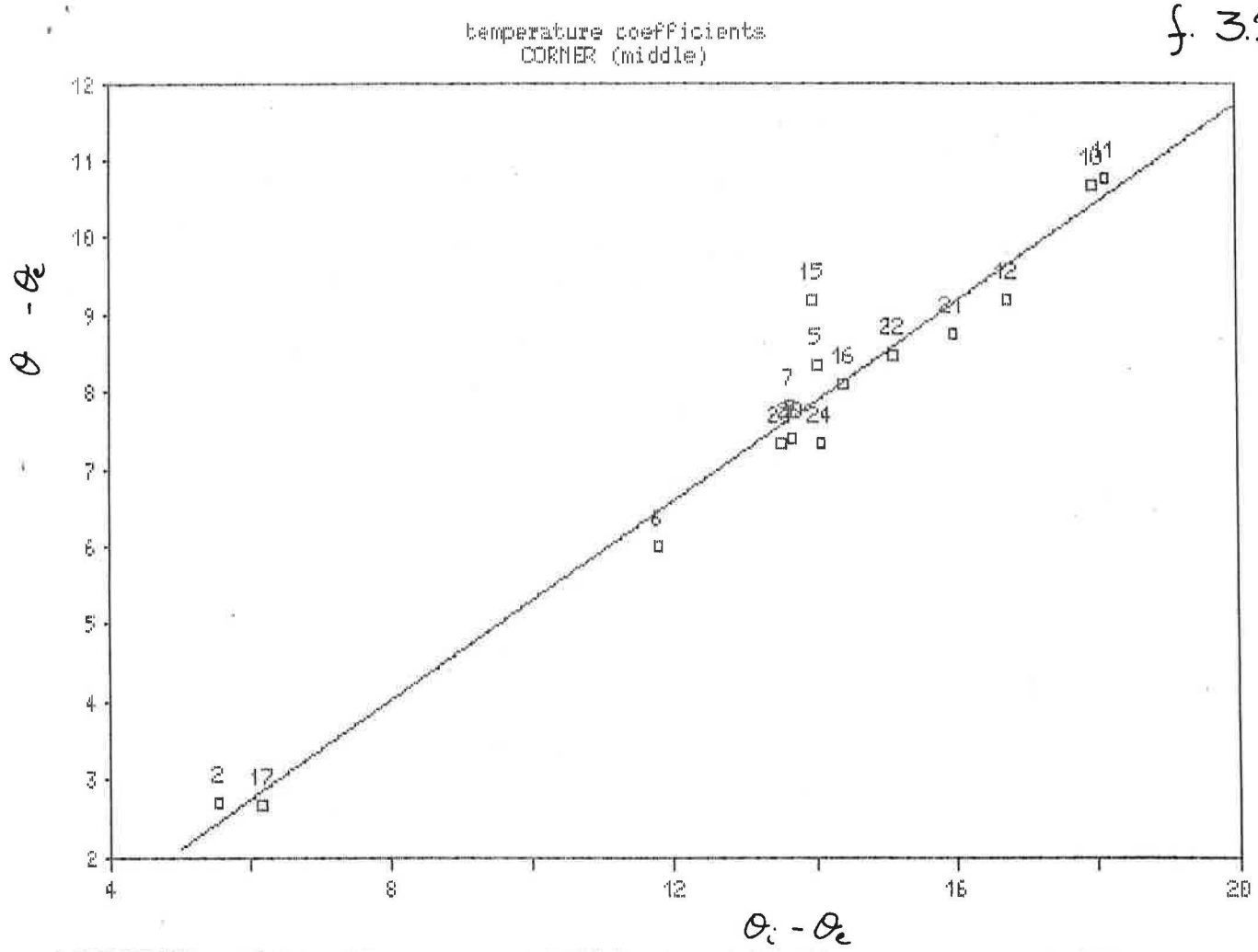
Constant	-2.419
Std Err of Y Est	0.465
R Squared	0.963
No. of Observations	15.000
Degrees of Freedom	13.000

X Coefficient(s)	0.635
Std Err of Coef.	0.034

18 θ_e temp (buiten)	9 θ_i temp living	26 θ_{si} temp corner down
11.633	17.158	12.869
3.844	17.867	11.204
6.490	18.256	11.398
4.879	18.513	11.310
-0.006	17.958	9.017
-0.006	18.117	8.948
0.794	17.540	8.452
3.886	17.859	11.345
3.004	17.408	9.654
9.915	16.065	10.979
3.152	16.817	9.396
1.873	17.840	9.431
1.956	17.088	9.077
3.249	16.780	9.300
3.835	17.915	9.727

	$\theta_i - \theta_e$	$\theta_{si} - \theta_e$	τ
average	13.645	6.241	0.435
DAY 2	5.525	1.235	0.224
DAY 5	14.023	7.360	0.525
DAY 6	11.767	4.908	0.417
DAY 7	13.633	6.431	0.472
DAY 10	17.965	9.023	0.502
DAY 11	18.123	8.954	0.494
DAY 12	16.746	7.659	0.457
DAY 15	13.973	7.459	0.534
DAY 16	14.404	6.650	0.462
DAY 17	6.150	1.065	0.173
DAY 20	13.665	6.244	0.457
DAY 21	15.967	7.558	0.473
DAY 22	15.131	7.121	0.471
DAY 23	13.531	6.051	0.447
DAY 24	14.079	5.892	0.418

f. 3.23



18 θ_e temp (buiten)	9 θ_i temp living	27 θ_{si} temp corner middle
11.633	17.158	14.350
3.844	17.867	12.208
6.490	18.256	12.502
4.879	18.513	12.727
-0.006	17.958	10.673
-0.006	18.117	10.756
0.794	17.540	9.981
3.886	17.859	13.086
3.004	17.408	11.115
9.915	16.065	12.588
3.152	16.817	10.548
1.873	17.840	10.644
1.956	17.088	10.448
3.249	16.780	10.600
3.835	17.915	11.185

	$\theta_i - \theta_e$	$\theta_{si} - \theta_e$	τ
average	13.645	7.661	0.552
DAY 2	5.525	2.717	0.492
DAY 5	14.023	8.365	0.596
DAY 6	11.767	6.013	0.511
DAY 7	13.633	7.848	0.576
DAY 10	17.965	10.679	0.594
DAY 11	18.123	10.763	0.594
DAY 12	16.746	9.187	0.549
DAY 15	13.973	9.200	0.658
DAY 16	14.404	8.110	0.563
DAY 17	6.150	2.673	0.435
DAY 20	13.665	7.396	0.541
DAY 21	15.967	8.771	0.549
DAY 22	15.131	8.492	0.561
DAY 23	13.531	7.351	0.543
DAY 24	14.079	7.350	0.522

Regression Output:

Constant	-1.091
Std Err of Y Est	0.503
R Squared	0.958
No. of Observations	15.000
Degrees of Freedom	13.000
X Coefficient(s)	0.641
Std Err of Coef.	0.037

APPENDICES

1. ANALYSIS OF THE AIRTIGHTNESS OF THE DWELLINGS
2. REVIEW OF THE RESULTS OF THE MEASURING CAMPAIGN 1986-1987

APPENDIX 1
ANALYSIS OF THE AIRTIGHTNESS OF THE DWELLINGS

BELGIAN BUILDING RESEARCH INSTITUTE

INTERNATIONAL ENERGY AGENCY
energy conservation in buildings and community systems programme
Annex XIV
CONDENSATION

ANALYSIS OF THE AIRTIGHTNESS OF 4 DWELLINGS IN A SOCIAL HOUSING ESTATE IN ZOLDER (BELGIUM)

July 1987

P. WOUTERS
D. L'HEUREUX
P. VOORDECKER
LABORATORIUM OF HYGROTHERMIC

1. Introduction

This study has been carried out in the framework of the annex/9 "Condensation" of the implementing Agreement "Energy conservation in buildings and community systems" of the International Energy Agency (IEA).

This report describes the pressurisation measurements in four dwellings of a social housing estate in Zolder (Belgium) built early this century (see § 2).

These pressurisation measurements form a part of a larger study on the same housing estate which is running at the Laboratory of Building Physics of the K.U.Leuven.

2. The housing estate

It is a social housing estate situated in Zolder (Belgium) which was built early this century for coal miners. One part of the houses is now property of the inhabitants, the other part is still rented. There are several types of ground plans, but the mainn difference is row houses versus corner houses. Some details for a corner house are given in fig. 1 to 7.

Main characteristics :

- non-insulated cavity walls
- 2 storeys + non occupied attic with a non airtight roof
- cellar
- all the walls and ceilings are plastered
- individual stoves
- windows with metal frames and single glazing.

A few years ago, the local housing society decided to install in the rented dwellings a central hot water heating system on natural gas with radiators and to replace the old windows by PVC windows with double glazing.
There are at present serious condensation and mould growth problems in most of these houses. It seems that there are nowadays more problems than before the renovation.

The major aim of the study by the K.U.Leuven is to analyse and to explain these problems in order to find an appropriate solution. The analysis of the airtightness and the ventilation possibilities are carried out by the Service of Hygrothermics and indoor climate of the Belgian Building Research Institute.

3. Pressurisation measurements

3.1. Aim

The major aim of pressurisation measurements is an unique and objective description of the overall building leakage of a building or a part of a building.
In practice ventilation and infiltration are strongly influenced by wind speed, wind direction and the temperature difference between indoor and outdoor. One can find for most parts of the heating season, pressure differences between 0 and 5 to 10 Pa.

In order to eliminate these disturbing influences as much as possible, pressurisation measurements are carried out for a pressure difference between outside and inside from 20 to 120 Pa (2 to 12 mm water column).

A general scheme of a pressurisation measurement is given in fig. 8.

3.2. Modellisation

The air flow rate through a leakage can be described as follows :

$$Q = C\ \Delta P^N$$

where :

Q : air flow rate (m^3/h)

C : air flow rate for a pressure difference of 1 Pa ($m^3/h\ pa^N$)

ΔP : pressure difference across the leakage (Pa)

N : exponent ranging from 0.5 to 1.0

0.5 = turbulent flow

1.0 = laminar flow.

This formulae can also be applied in the case of the overall building leakage. It means that the overall building leakage of a house is known if C and N are determined.

This can be done by measuring for several pressure differences ΔP the corresponding air flow rate Q. The values C and N can be found by applying an ordinary least square approach on these data.

3.3. Measurement equipment

A pressurisation door RETROTEC RDF-610 was used for these measurements (see fig. 9). Two fans can be mounted in the door :

- fan 1 : maximum air flow for ΔP = 50 Pa : 8.000 m^3/h
- fan 2 : maximum air flow for ΔP = 50 Pa : 6.200 m^3/h.

3.4. Possibilities for the interpretation of the results

Several methods are used for presenting the airtightness :

3.4.1. Effective leakage Area (ELA)

This is the surface of an opening in a wall which gives, for a given pressure difference, the same air flow as found in the measured building. The air flow rate through such an opening is turbulent (N = 0,5), which means that one must specify the pressure difference :

United States : ΔP = 10 Pa → ELA (10)
Canada : ΔP = 4 Pa → ELA (4).

One should also specify the geometry because :

$$Q = \left(\frac{2\ \Delta P}{\rho\ \xi}\right)^{1/2} \cdot A$$

where :

ρ : density of the air (kg/m^3)
ξ : friction coefficient

In United States : ξ = 1 (very smooth flow pattern)
In Canada : ξ = 2.678 (sharp edges)

Table 1 gives the relation between pressure difference and air flow rate for both types of openings.

Pressure difference ΔP (Pa)	Hole with sharp edges (ξ = 2,8)		Hole with rounded edges (ξ = 1)	
	Air velocity (m/s)	Air flow rate ($m^3/h,m^2$)	Air velocity (m/s)	Air flow rate ($m^3/h,m^2$)
1	0,75	2700	1,25	4500
2	1,1	3800	1,8	6400
4	1,5	5400	2,5	9000
10	2,4	8500	4,0	14200
50	**5,3**	**19000**	**8,8**	**32000**
100	7,5	27000	12,5	45000

Table 1

3.4.2. n_{50} : ventilation rate for a pressure difference of 50 Pa

$$n_{50} = \frac{Q_{50}}{V} \quad (h^{-1})$$

where :

Q_{50} : air flow rate for a pressure difference ΔP of 50 Pa (m^3/h)
V : house volume (m^3)

It is possible to give a qualitative evaluation of the airtightness of dwellings by using table 2 which reflects the present point of view of several researchers.

n_{50} (h^{-1})	Description
> 13	house is too leaky, improvement of the air tightness is required
8 - 13	mild climates : natural ventilation is acceptable severe climates : improvement of the air tightness in combination with a mechanical ventilation system is desirable
5 - 8	not desirable : natural ventilation gives during certain periods a too low ventilation rate while mechanical ventilation is not efficient
3 - 5	a mechanical ventilation system gives good results
≤ 1	a balanced ventilation system with heat recovery can be used (if the climate is severe enough)

Table 2

Sweden and Norway have already building requirements with regard to the airtightness : table 3

	Sweden	Norway
Detached and terraced single family houses	3.0	4.0
Other residential buildings of not more than 25 storeys	2.0	3.0
Residential buildings of 3 or more storeys	1.0	1.5

Table 3 : maximum air change rate (h^{-1}) at 50 Pa for residential buildings in Sweden and Norway.

Interpretation

A house with an n_{50}-value of 1 h^{-1} is very airtight.
This becomes clear if one transforms the date given in table 1.
For an average house (V = 250 m^3/h) n_{50} = 1 h^{-1} corresponds with 250 m^3/h for a ΔP = 50 Pa.

From table 1 : 250 m^3/h corresponds with 250/32.000 à 250/19.000 m^2 or 80 to 130 cm^2.

Practical rule : an increase in leakage area of 100 cm^2 means for an average house an increase of n_{50} with 1 h^{-1}.

Some examples for typical dwellings :

- an entry door with a joint between the door and the floor of 3 mm (30 cm^2) gives an increase in n_{50}-value of 0.3 h^{-1}.

- a joint in the ridge of the roof with a width of 1 cm and a length of 8 m gives an increase of n_{50}-value of 8 h^{-1}.

3.5. Pressurisation results in 4 measured houses

3.5.1. The houses : some data

Table 4 gives an overview of the houuses and the measurement conditions. It was a cold period with low wind speeds.

Dwelling	Address	Date	θ_e °C	θ_i °C	Wind speed (m/s)	Volume m^3	Type
1	Beukenlaan, 21	19.01.87	- 6	17	2	260	row house
2	Olmenstraat, 9	19.01.87	- 5	20	2	250	corner house
3	Berkenstraat, 46	20.01.87	- 3	20	2	260	row house
4	Populierstraat, 18	20.01.87	- 3	20	2	250	cornerhouse

Table 4

3.5.2. Description of the pressurisation measurements

A description of the pressurisation measurements is given in tables 5 to 8.

Measurement	Description
1.1.	This dwelling at present (normal use)
1.2.	The extractor fan in the kitchen is made airtight
1.3.	The 4 ventilation bricks in the cellar are also made airtight (PVC foil) as well as the chimney of the boiler in the cellar
1.4.	The entry panel to the attic is also made airtight
1.6.	All the joints between the windows and walls and between doors and walls are also made airtight
1.7.	All the (sometimes rather important) joints between the fixed parts and openable parts of the window are also sealed

Table 5 : Description of measurements in dwelling 1

Measurement	Description
2.1.	This dwelling at present (normal use)
2.2.	The entry door to the attic is made airtight (PVC-foil)
2.3.	The chimney of the boiler in the cellar is also made airtight (PVC-foil)

Table 6 - Description of measurements in dwelling 2.

Measurement	Description
3.1.	This dwelling at present (normal use)
3.2.	The extractor fan in the kitchen is made airtight
3.3.	The entry panel to the attic is also made airtight
3.4.	The ventilation bricks in the cellar are also made airtight
3.5.	The chimney of the boiler in the cellar is also made airtight

Table 7 - Description of the measurements in dwelling 3

Measurement	Description
4.2.	This dwelling at present (normal use)
4.3.	The entry door to the attic is made airtight (PVC-foil)
4.4.	The chimney of the boiler in the cellar is also made airtight

Table 8 - Description of the measurements in dwelling 4.

3.5.3. Pressurisation results

3.5.3.1. **Measured results**

The data and the results are summarised in tables 9 to 12.

		Measured results						Results after deducting cellar (see 3.5.3.2)	
	Improvement	C m^3/hPa^N	N -	Q_{50} m^3/h	n_{50} h^{-1}	ELA(4) cm^2	ELA(10) cm^2	Q_{50} m^3/h	n_{50} h^{-1}
1.1	Reference	87	0.70	1320	**5.1**	245	480	940	**3.6**
1.2	Kitchen extractor	75	0.72	1260	**4.8**	220	440	880	**3.4**
1.3	Airing cellar	79	0.65	1010	**3.9**	210	400	880	**3.4**
1.4	Attic entry	48	0,73	840	**3.2**	140	290	700	**2.7**
1.6	Joints (doors + windows)-wall	32	0,73	540	**2,1**	90	190	400	**1,5**
1.7	Joints in windows	15	0,75	270	**1,0**	45	90	135	**0,5**

Table 9 - Results for house nr. 1

		Measured results						Results after deducting cellar (see 3.5.3.2)	
	Improvement	C m^3/hPa^N	N -	Q_{50} m^3/h	n_{50} h^{-1}	ELA(4) cm^2	ELA(10) cm^2	Q_{50} m^3/h	n_{50} h^{-1}
2.1	Reference	230	0.49	1560	**6.2**	490	790	1320	**5.3**
2.2	Attic entry	125	0.54	1020	**4.1**	280	480	780	**3.1**
2.3	Chimney boiler	93	0.56	820	**3.3**	220	380	780	**3.1**

Table 10 - Results for house nr. 2

		Measured results						Results after deducting cellar (see 3.5.3.2)	
	Improvement	C m^3/hPa^N	N -	Q_{50} m^3/h	n_{50} h^{-1}	ELA(4) cm^2	ELA(10) cm^2	Q_{50} m^3/h	n_{50} h^{-1}
3.1	Reference	104	0.66	1380	**5.3**	280	530	840	**3.2**
3.2	Kitchen extractor	86	0.69	1260	**4.8**	240	465	720	**2.8**
3.3	Attic entry	82	0.68	1170	**4.5**	225	435	630	**2.4**
3.4	Airing cellar	84	0.63	1000	**3.9**	215	400	630	**2.4**
3.5	Chimney boiler	67	0.65	840	**3.2**	180	330	630	**2.4**

Table 11 - Results for house nr. 3

		Measured results						Results after deducting cellar (see 3.5.3.2)	
	Improvement	C m^3/hPa^N	N -	Q_{50} m^3/h	n_{50} h^{-1}	ELA(4) cm^2	ELA(10) cm^2	Q_{50} m^3/h	n_{50} h^{-1}
4.2	Reference	84	0.69	1230	**4.9**	230	440	1010	**4.0**
4.3	Attic entry	75	0.66	1000	**4.0**	200	380	780	**3.1**
4.4	Chimney boiler	60	0.68	840	**3.4**	160	320	780	**3.1**

Table 12 - Results for house nr. 4

3.5.3.2. Results without cellar

It is useful to have an idea of the total air flow rate towards the cellar and not only the change of air flow rates.
Table 13 gives an overview of measured pressure difference between the house and the cellar. The data are given for a pressure difference between inside and outside ΔP_{ie} of 20, 40, 50, 60, 80, 100 and 120 Pa. They are obtained by interpolation.

ΔP_{ie}	Measurement					
(Pa)	1.1	1.2	1.3	1.4	1.6 (*)	1.7
20	-	-	1.4	-	2.2	-
40	-	18.9	3.7	3.6	5.2	3.7
50	-	26.5	4.7	4.6	6.4	4.7
60	-	32.0	5.6	5.5	7.7	5.6
80	44.8	43.0	7.4	7.6	10.6	7.5
100	53.5	53.0	9.4	9.5	13.4	9.4
120	65	65	11.4	-	-	11.4

Table 13 - Dwelling nr. 1 - Pressure difference between dwelling and cellar

(*) Some problems with fixing of tape and airing holes in cellar.

ΔP_{ie}	Measurement		
(Pa)	2.1	2.2	2.3
20	2.7	2.6	0.1
40	4.1	4.0	0.2
50	4.8	4.7	0.3
60	5.5	5.4	0.4
80	6.8	6.7	0.6
100	8.1	8.1	0.8
120	9.5	-	0.9

Table 14 - Dwelling nr. 2 - Pressure difference between dwelling and cellar

ΔP_{ie} (Pa)	Measurement				
	3.1	3.2	3.3	3.4	3.5
20	8.6	8.8	8.6	5.7	2.4
40	21.7	22.1	22.3	11.8	4.6
50	27.2	27.4	27.4	14.5	5.7
60	32.8	32.8	32.5	16.8	6.7
80	-	43.0	43.0	22.6	9.0
100	-	-	-	-	11.3
120	-	-	-	-	13.2

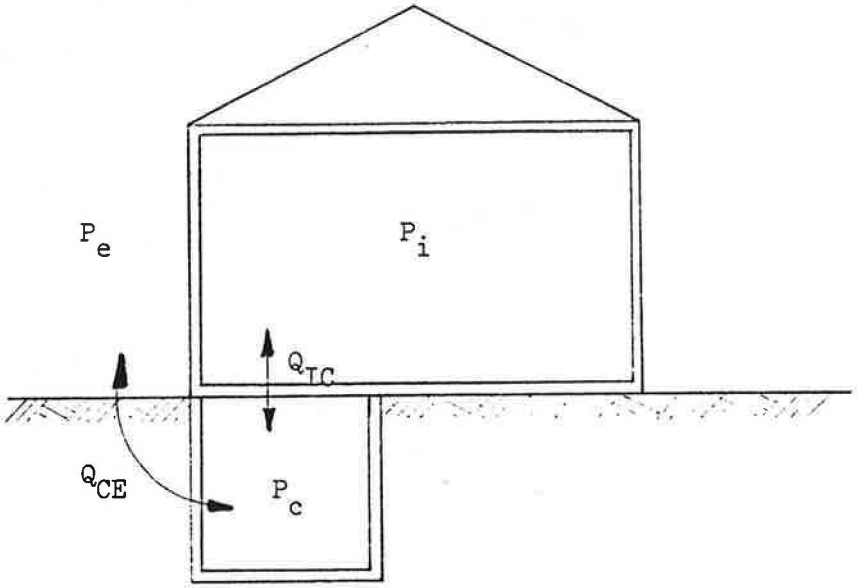
Table 15 - Dwelling nr. 3 - Pressure difference between dwellings and cellar

ΔP_{ie} (Pa)	Measurement		
	2.1	2.2	2.3
20	1.5	1.7	0.1
40	3.3	3.4	0.3
50	4.2	4.3	0.4
60	5.0	5.0	0.5
80	6.5	6.6	0.65
100	-	8.2	0.8
120	-	-	1.1

Table 16 - Dwelling 4 : Pressure difference between dwelling and cellar

Interpretation

- The pressure differences between dwelling and cellar for comparable measurements with regard to the cellar leakage distribution (1.1-1.2, 1.3-1.7, 2.1-2.2, 3.1-3.3 and 4.2-4.3) are very similar. This is logical because the leakage distribution in the cellar space was identical (fig. 1).



$$Q_{IC} = C_{IC} (P_i - P_c)^{N_{IC}}$$
$$Q_{CE} = C_{CE} (P_c - P_e)^{N_{CE}}$$
) $Q_{IC} = Q_{CE}$

Fig. 1

These data in combination with the results given in the left part of tables 5 to 8 allow to calculate the leakage characteristics and the air flow rate between dwelling and cellar.

For this, results of 2 measurements should be used :

- **Measurement 1** : Situation before an improvement in the cellar :
  e.g. Measurement 1.2 :
  $Q_{50,1}$ = 1260 m³/h
  ΔP_{ic} = 26.5 Pa (pressure difference between dwelling and cellar for a difference inside - outside of 50 Pa).

- **Measurement 2** : situation after an improvement in the cellar
  e.g. measurement 1.3
  $Q_{50,2}$ = 1010 m³/h
  ΔP_{ic} = 4,7 Pa.

The only difference in the air leakage rate between the 2 measurements is found for the correction between dwelling and cellar :
e.g. measurement 1.2 : $Q_{ic,1} = C_{ic} \cdot 26.5^{Nic}$ (1)
1.3 : $Q_{ic,2} = C_{ic} \cdot 4.7^{Nic}$ (2)

The value of C_{ic} is still unknown but identical in the 2 cases because the airtightness of the entry door to the cellar and the airtightness of the staircase above the cellar was not changed.
There is no information about the absolute values of $Q_{ic,1}$ and $Q_{ic,2}$ but we know that $Q_{ic,1} - Q_{ic,2} = Q_{50,1} - Q_{50,2}$ so that $Q_{ic,1} - Q_{ic,2}$ = 1260 - 1010 m³/h = 250 m³/h.

The difference between (1) and (2) is :

$$Q_{ic,1} - Q_{ic,2} = C_{ic} (26.5^{NIC} - 4.7^{NIC})$$

$$= 250 \text{ m}^3/\text{h}$$

A value of C_{ic} can be calculated after estimating N_{IC}.
It seems logical to assume N_{IC} = 0.6 so that

$$250 = C_{ic} (26.5^{0.6} - 4.7^{0.6})$$

or C_{ic} = 54,2 m³/hPa .

The air flow rates without the cellar are than :

measurement 1.2 = 1260 - 54 x $26.5^{0.6}$ = 880 m³/h
measurement 1.3 = 1010 - 54 x $4.7^{0.6}$ = 880 m³/h.

This method is also applied to dwellings 2, 3 and 4.

Remark

Two improvements were realized in the cellar of dwelling 3 : airtightning of the airing blocks in the cellar (3.4) and airtightning of the chimney of the boiler (3.5). This allows to apply 3 times the above mentioned procedure.

(3.3) and (3.4) → C_{ic} = 74 m³/h
(3.3) and (3.5) → C_{ic} = 74 m³/h
(3.4) and (3.5) → C_{ic} = 74 m³/h.

It is logical to find identical results and it indicates that this approach is reliable.

The right part of tables 9 and 12 gives the air flow rate for the 4 dwellings after deducting the airflow rate towards the cellar.

3.5.3.3. Percentage of leakage towards attic and cellar

The results of the pressurisation measurements allow to estimate the percentage of leakages between on the one hand dwelling and cellar and on the other hand dwelling and attic.
It also allows to estimate the overall leakage rate (n_{50}-value) in the case of no significant leakages between dwelling and cellar + attic.
The results are given in table 13.

Dwelling	Present n_{50}-value (h^{-1})	Percentage of leakage towards		n_{50} if cellar + attic airtight (h^{-1})
		cellar (%)	attic (%)	
1	5.1	29	13	3.0
2	6.2	15	35 (door)	3.1
3	5.3	39	7	2.9
4	4.9	18	19 (door)	3.1
Average	5.4	25	19	3.0

Table 17 - Contribution of leakages towards cellar and attic.

3.5.4. Interpretation

- The air tightness of these dwellings is at present situated between an n_{50}-value of 4.9 to 6.2 h^{-1}. This can be considered as rather airtight.

- The airtightness of the entry-opening or entry door towards the attic is rather poor. The ELA(10)-values are 110 cm^2, 310 cm^2, 30 cm^2 and 60 cm^2. It is 7 to 35% of the building leakage.

- The airtightness of the door (and staircase) between the dwelling and the cellar is also rather poor. It is 15 to 39 % of the overall building leakage.

- It is rather easy to make the leakages towards the attic and the cellar rather airtight. This reduces the overall leakage to a level of 50 to 63% of the actual overall leakage or n_{50} = 2.9 to 3.1 h^{-1}. This n_{50}-value can be regarded as an indicator of the average leakage level of the outside walls. One must conclude that it varies very little and that the overall tightness becomes very high which means very low air change rates.

X - A comparison of the higher mentioned n_{50}-values with the values given in table 2 indicates that these houses are too airtight for natural ventilation.

- The ventilation previsions in these houses are at present almost zero. The living room has one openable window, there are no controlable ventilation inlets and the only extraction systems are the kitchen extractor (very noisy) and a small window in the bathroom.

- The difference in results between measurement 1.6 and 1.7 (house 1) gives an idea of the airtightness of these windows and doors. The air flow Q_{50} reduced with 270 m^3/h for an overall joint length of about 47 m which corresponds with 5,7 m^3/h per m joint length. This value is about 50 % higher than the required airtightness for new windows when tested in the laboratory.

3.5.5. The influence of chimney and cellar-window on the pressure in the cellar

Several measurements were carried out in house 3 to analyse the pressure difference in normal use between the dwelling and the cellar.

Major conclusions :

- an underpressure of 2 to 4 Pa was found when the boiler was functionning and when the air inlet from outside to the cellar was ceiled (the ventilation opening in the window (20 by 20 cm) was made airtight).
  This means that with these conditions air is going form the house to the cellar and that even a humid cellar will not increase the humidity in the dwelling.
- The pressure difference was almost zero when the air inlet was not airtight. It signifies that it is possible to have during certain periods a flow of humid air from the attic to the dwelling.

One can conclude from this that the sense of air flow between cellar and dwelling depends largely on the use of the air inlet in the cellar.

3.6. Estimation of the ventilation rates

3.6.1. The LBL-method : a simplified calculation method

3.6.1.1. **Introduction**

The LBL-method (Lawrence Berkeley Laboratories) allows an estimation of the ventilation rate as a function of wind speed and temperature difference if the results of a pressurisation measurement are available.
The mean features are : great simplicity in use and a rather good correlation with measured results.

3.6.1.2. **Detailed description (from AIVC "Air Calculation Techniques)**

This algorithm was developed to predict the impact in air infiltration rates of retrofit and other changes in the building envelope using the minimum number of model parameters. The technique was specifically designed for simplicity and therefore precise detail has been sacrified for ease of application. Model parameters include :

- leakage of structure (as inferred by building pressurization or by reference to the characteristic leakage performance of individual building components.
- ratio of floor/ceiling leakage to wall leakage
- heigh of building
- internal/external temperature difference
- wind speed
- terrain class (table 18)
- shielding class (table 19)

} to determine external pressure distribution

The primary feature of this approach is that the calculation is split into two distinct components, these being the separate.
The reduced wind parameter, f^*_w is given by the following expression :

$$f^*_w = C' \left[(1 - R)^{1/3} \right] \left[\frac{\alpha \left(\frac{H}{10}\right) \gamma}{\alpha' \left(\frac{H'}{10}\right) \gamma'} \right]$$

where :

C' : the generalised shielding coefficient
R : the vertical leakage fraction, i.e. the fraction of leakage in the floor and ceiling
α, γ : on-site terrain parameters
α', γ' : off-site terrain parameters
H : height of the structure (m)
H' : height of the wind measurement (m)

} see tables 18 and 19

and the reduced stack parameters, f^*_s, is given by

$$f^*_s = \frac{(1 + R/2)}{3} \left[1 - \frac{x^2}{(2 - R)^2} \right]^{3/2} \sqrt{\frac{gH}{T}}$$

where :

$X = \dfrac{\text{ELA(4) ceiling - ELA(4) floor}}{\text{ELA(4)}}$ is the ceiling-floor leakage difference.

g = the acceleration of gravity (9.81 m/s^2)
T = the inside temperature.

Infiltration is given by summing the wind and stack components in quadrature to give :

$$Q_{inf} = (Q_w^2 + Q_s^2)^{1/2}$$

Data requirements :

- air leakage (pressurization) test data
- wind speed data
- terrain and shielding conditions
- building information (vertical/horizontal distribution of openings).

Infiltration in these two regimes is expressed by :

$$Q_w = f_w^* \; V' \; ELA(4)$$

$$Q_s = f_s^* \; (\Delta T)^{1/2} \; ELA(4)$$

respectively, where

$ELA(4)$ = the equivalent leakage area of the structure (m^2)
Q_w = the infiltration in the wind-regime (m^3/s)
Q_s = the infiltration in the stack regime (m^3/s)
f_w^* = the "reduced" wind parameter
V' = the (weather tower) wind speed (m/s)
ΔT = inside/outside temperature difference (K)

The value of equivalent leakage area, ELA(4) is given by

$$ELA(4) = \frac{K_t \; (\Delta P_{ref})^n}{(\frac{2}{\rho} \Delta P_{ref})^{1/2}} \qquad (m^2)$$

where :

K = total flow coefficient for building) determined by pressurization
n = flow exponent.

P_{ref} is a reference pressure difference for calculating the equivalent leakage area and has been arbitrarily chosen to be equal to 4 Pa, i.e.

$$ELA(4) = \frac{K_t \; (4)^n}{(\frac{8}{\rho})^{1/2}} \qquad (m^2)$$

The main advantage of this LBL-method is that the wind and stack infiltration equations may be readily evaluated. However, this approach does suffer from a number of disadvantages which limit its further applicability. Its main disadvantage is that the leakage distribution is divided into horizontal and vertical components only. No allowance is made fo non linear leakage distribution, such as that caused by open doors, therefore the effects of such openings cannot be modelled. For similar reasons, it is also not possible to establish the flow routes into the zone or to determine the direction of flow.

Table 18 - Terrain coefficients for LBL model

$$\frac{U}{U'} = \frac{\alpha\,(z/10)^{\gamma}}{\alpha'\,(z'/10)^{\gamma}}$$

where :

U = required site wind speed at level z above ground
U' = measured windspeed at level z' above ground (see below)
α', γ' = constants dependent on offsite terrain conditions
α, γ = constants dependent on onsite terrain conditions (see below)

Terrain description	γ	α
Ocean or other body of water with at least 5 km of unrestricted expanse	0.10	1.30
Flat terrain with some isolated obstacles, e.g. buldings of trees well separated from each other	0.15	1.00
Rural areas, with low buildings, trees, etc..	0.20	0.85
Urban, industrial of forest areas	0.25	0.67
Centre of large city, e.g. Manhattan	0.35	0.47

Table 19 - Generalised shielding coefficients for LBL model

Shielding Class	C'	Description
I	0.34	No obstructions or local shielding whatsoever
II	0.30	Light local shielding with few obstructions
III	0.24	Moderate local shielding, some obstructions within two house heights
IV	0.185	Heavy shielding, obstructions around most of perimeter
V	0.11	Very heavy shielding, large obstruction surrounding perimeter within two house heights

3.6.1.3. **Results**

4 situations are calculated :

Case 1 : present level of airtightness with some improvements of the airtightness of the attic door :

- ELA(4) = 300 cm^2 = 0.03 m^2
- percentage of leakage in the ceiling : 20 %
- percentage of leakage in the floor : 25 %

→ R = 0.45

X = 0.05

- shielding class (see table 19) : III (moderate shielding)

→ C' = 0.24

Case 2 : same as case 1, but shielding class IV (heavy shielding)

Case 3 : improved airtightness : floor and ceiling are airtight (improvement of attic entry and cellar door + staircase)

- ELA(4) = 180 cm^2 = 0.018 m^2
- X = R = 0
- shielding class III → C' = 0.24

Case 4 : Same as case 3, but shielding class IV → C' = 0.185

The results are given in tables 20 to 23.

Vit m/s	Temp. (°C) 15	10	5	0	-5	-10
0	0,18	0,25	0,31	0,35	0,39	0,43
2	0,24	0,30	0,35	0,39	0,43	0,46
4	0,38	0,42	0,46	0,49	0,52	0,55
6	0,54	0,57	0,59	0,62	0,64	0,67
8	0,70	0,72	0,75	0,77	0,79	0,81
10	0,87	0,89	0,90	0,92	0,94	0,95

Table 20 : n-values (h^{-1}) for case 1

Vit m/s	Temp. (°C) 15	10	5	0	-5	-10
0	0,18	0,25	0,31	0,35	0,39	0,43
2	0,22	0,28	0,33	0,38	0,42	0,45
4	0,32	0,36	0,40	0,44	0,47	0,51
6	0,43	0,47	0,50	0,53	0,56	0,58
8	0,55	0,58	0,61	0,63	0,66	0,68
10	0,68	0,70	0,72	0,74	0,76	0,78

Table 21 : n-values (h^{-1}) for case 2

Vit m/s	Temp. (°C) 15	10	5	0	-5	-10
0	0,09	0,12	0,15	0,17	0,19	0,21
2	0,15	0,17	0,19	0,21	0,23	0,25
4	0,26	0,28	0,29	0,30	0,32	0,33
6	0,38	0,39	0,40	0,41	0,42	0,43
8	0,51	0,51	0,52	0,53	0,53	0,54
10	0,63	0,63	0,64	0,65	0,65	0,66

Table 22 : n-values (h^{-1}) for case 3

Vit m/s	Temp. (°C) 15	10	5	0	-5	-10
0	0,09	0,12	0,15	0,17	0,19	0,21
2	0,13	0,16	0,18	0,20	0,22	0,23
4	0,21	0,23	0,24	0,26	0,27	0,29
6	0,30	0,31	0,32	0,34	0,35	0,36
8	0,39	0,40	0,41	0,42	0,43	0,44
10	0,49	0,49	0,50	0,51	0,52	0,52

Table 23 : n-values (h^{-1}) for case 4

3.6.1.4. **Interpretation**

- The LBL-model predicts for the 4 cases an overall seasonal ventilation rate (θ_e = 10°C, θ_i = 20°C, v = 4 m/s) between 0.23 and 0.42 h^{-1}.

  These results must be treated with care :

  . the average dwelling temperature is probably much lower than 20°C. One finds for $\theta_i - \theta_e$ = 5°C (or θ_i = 20°C and θ_e = 15°C) a variation in n-rate between 0,21 and 0,38 h^{-1}.

  . These are average ventilation rates. The pressurisation measurements have indicated that there are important leakages around the attic entry, the cellar door and the entry door. It indicates that there are probably much lower ventilation rates in living room and sleeping rooms.

- The LBL-results seem to indicate that the basic air change rate (= without window use) exceeds in practice very rarely 1 h^{-1}.

3.7. Conclusions

- The results of the pressurisation measurements indicate that these houses are at present rather airtight (n_{50} = 4,9 to 6,2 h^{-1}).

- The pressurisation measurements also indicate that the houses will become very airtight if the attic entry and cellar entry are made airtight (n_{50} = 2.9 to 3.1 h^{-1}).

- The sense of the air flow between dwelling and cellar depends on the use of the ventilation opening in the cellar
  - if the ventilation openings are open : air goes normally from the cellar to the house
  - if the ventilation openings are close : the chimney of the boiler creates an underpressure in the cellar which reverses the air flow so that the air goes from the dwelling to the house

- The LBL-model predicts average ventilation rates between 0.23 and 0.42 h^{-1}. Much lower ventilation rates seems to occur in the living room and bedrooms.

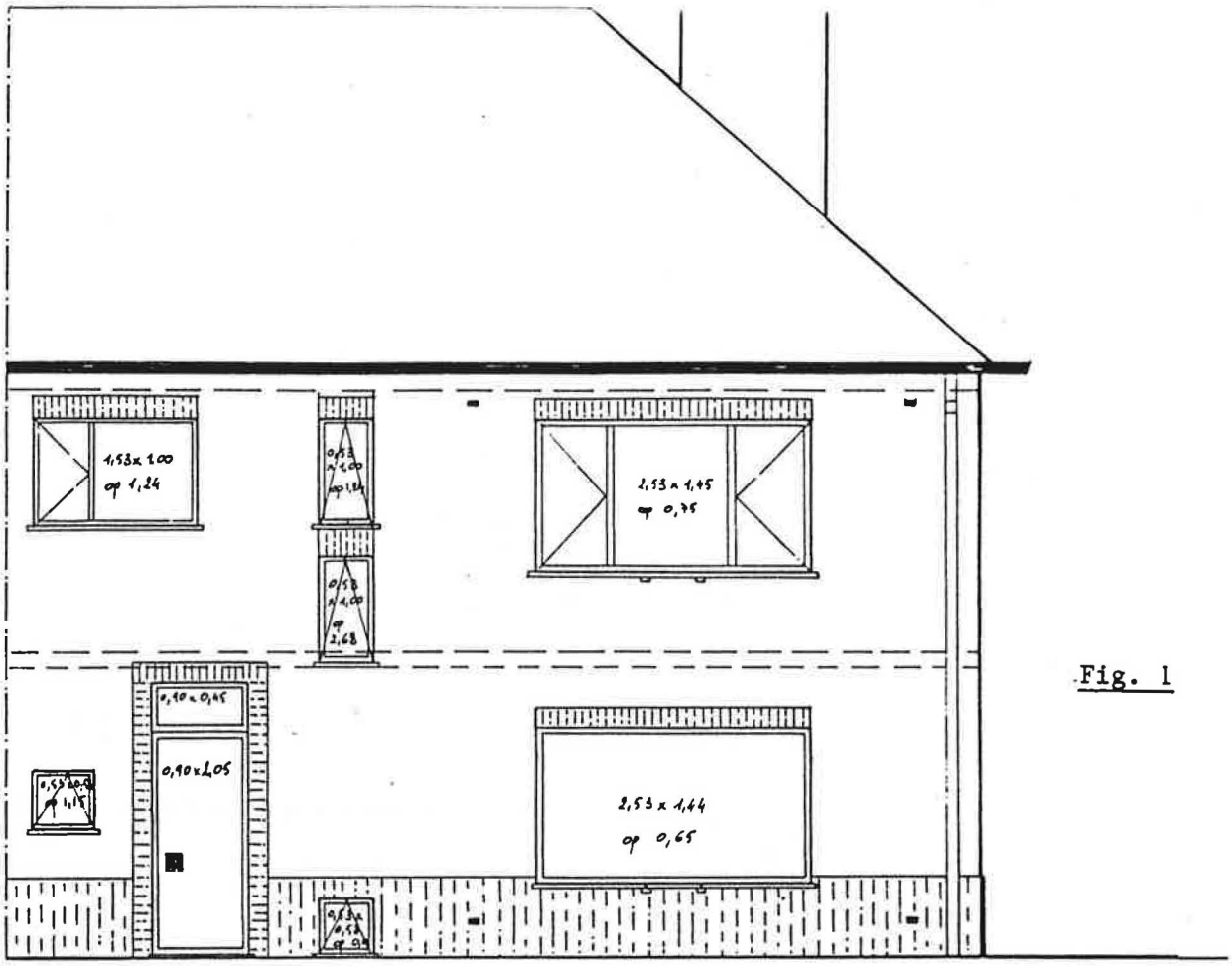


Fig. 1

GEVEL STRAAT

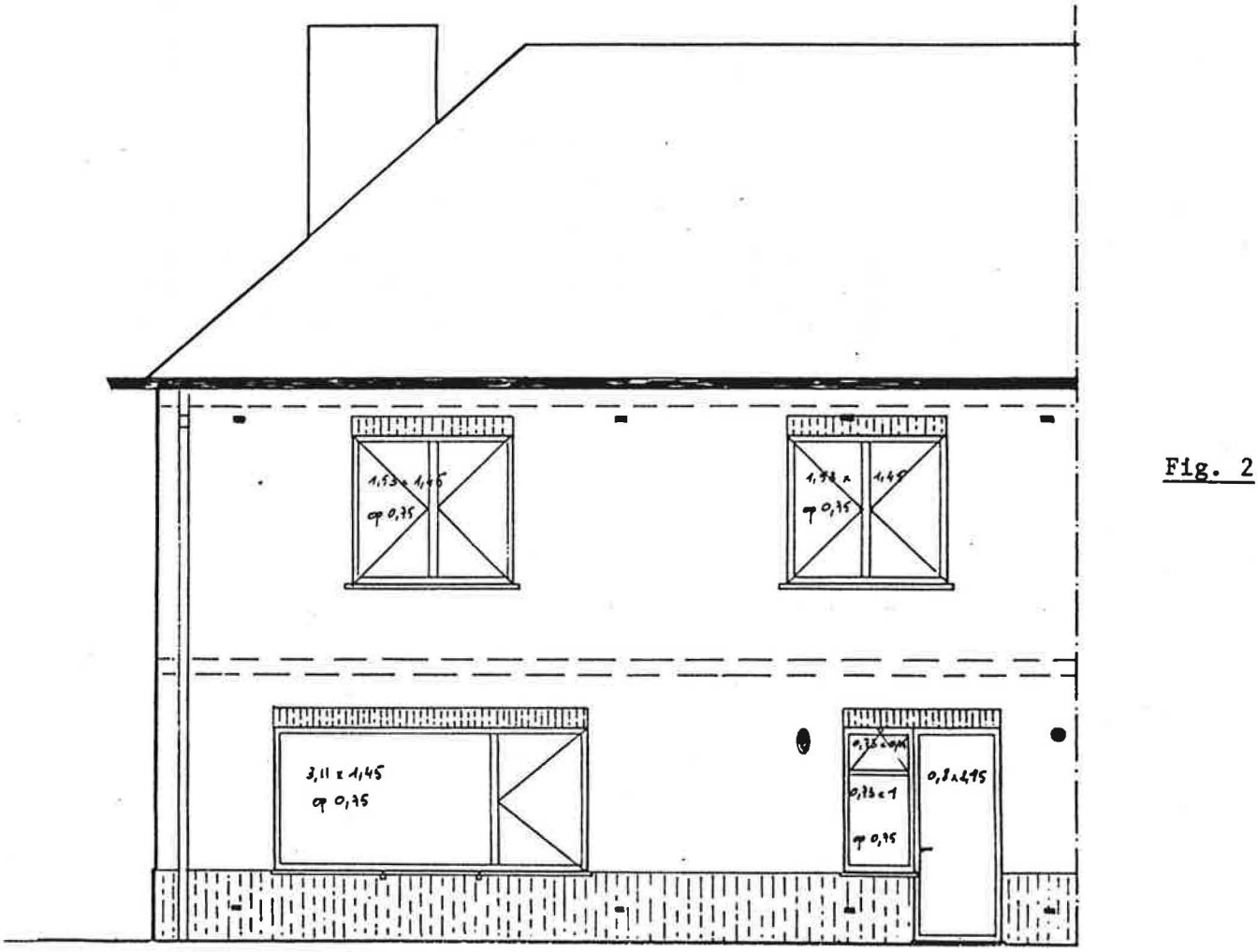


Fig. 2

GEVEL TUIN

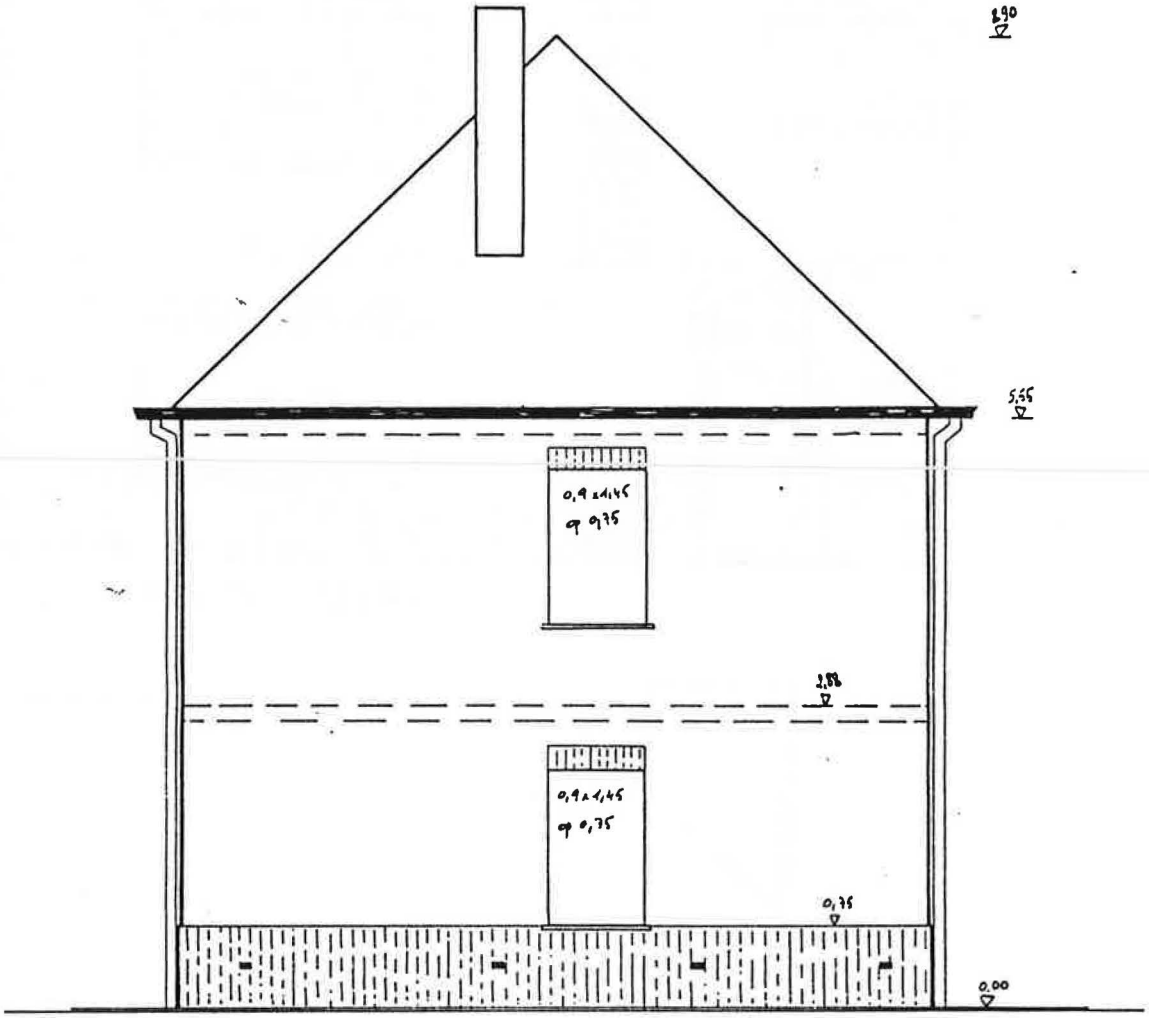


Fig. 3

ZIJGEVEL

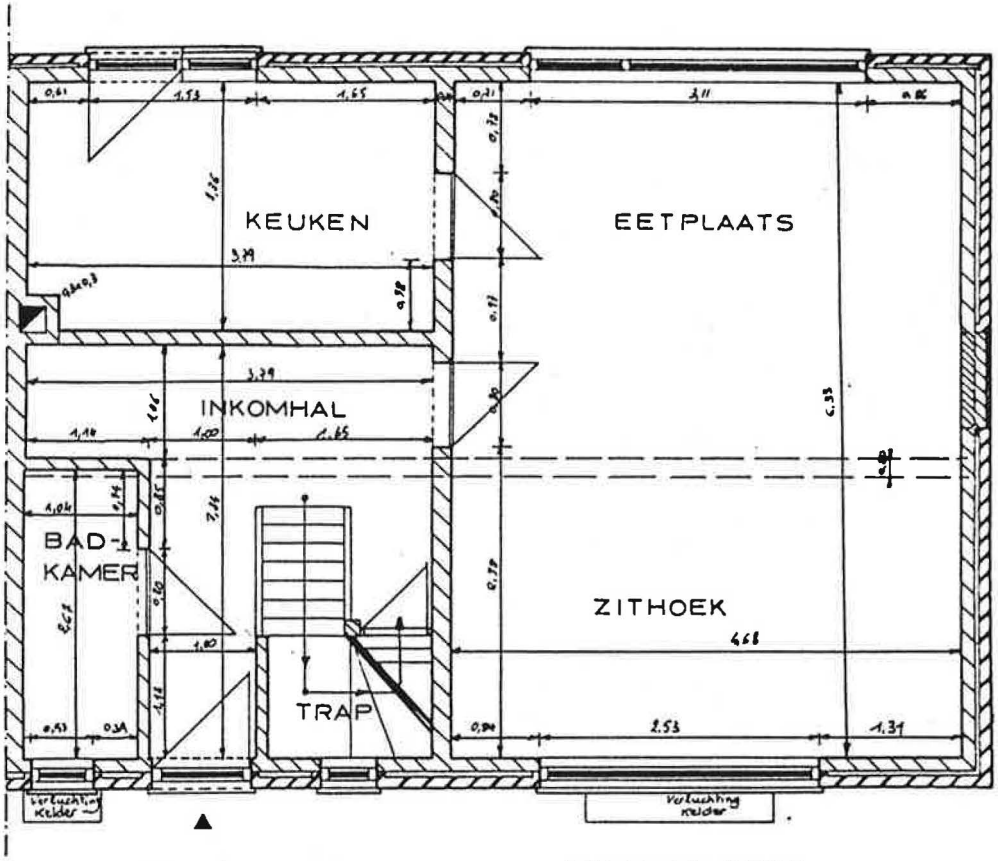


Fig. 4 GELIJKVLOERS

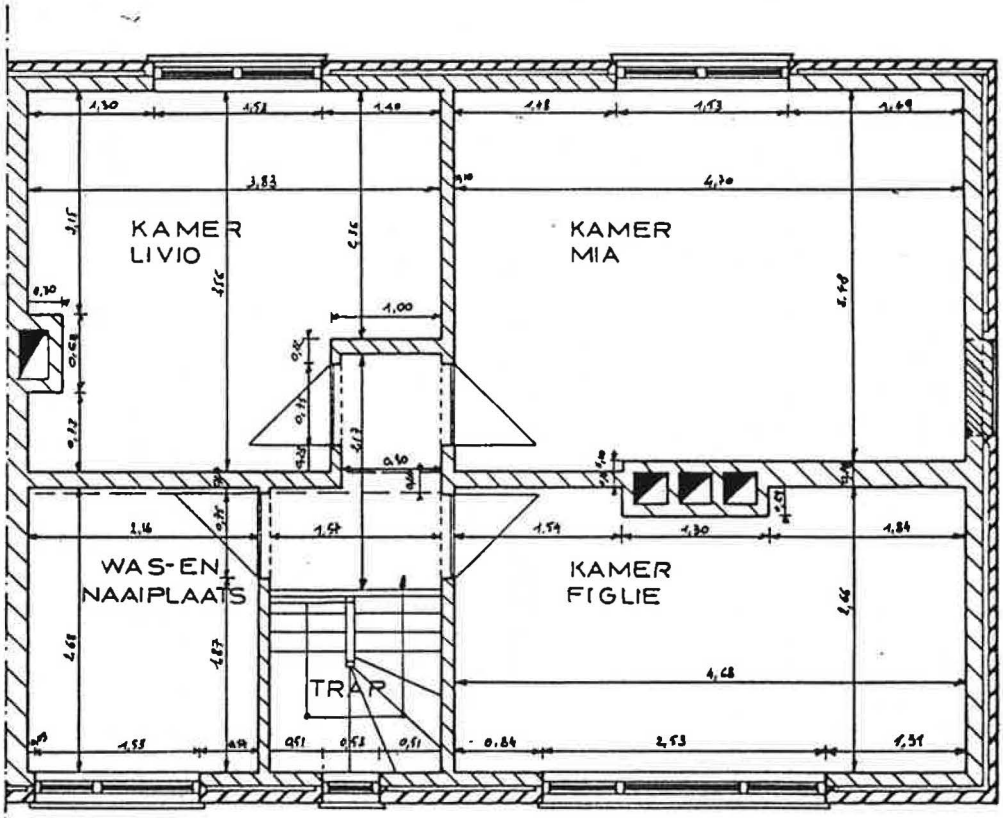


Fig. 5 VERDIEPING

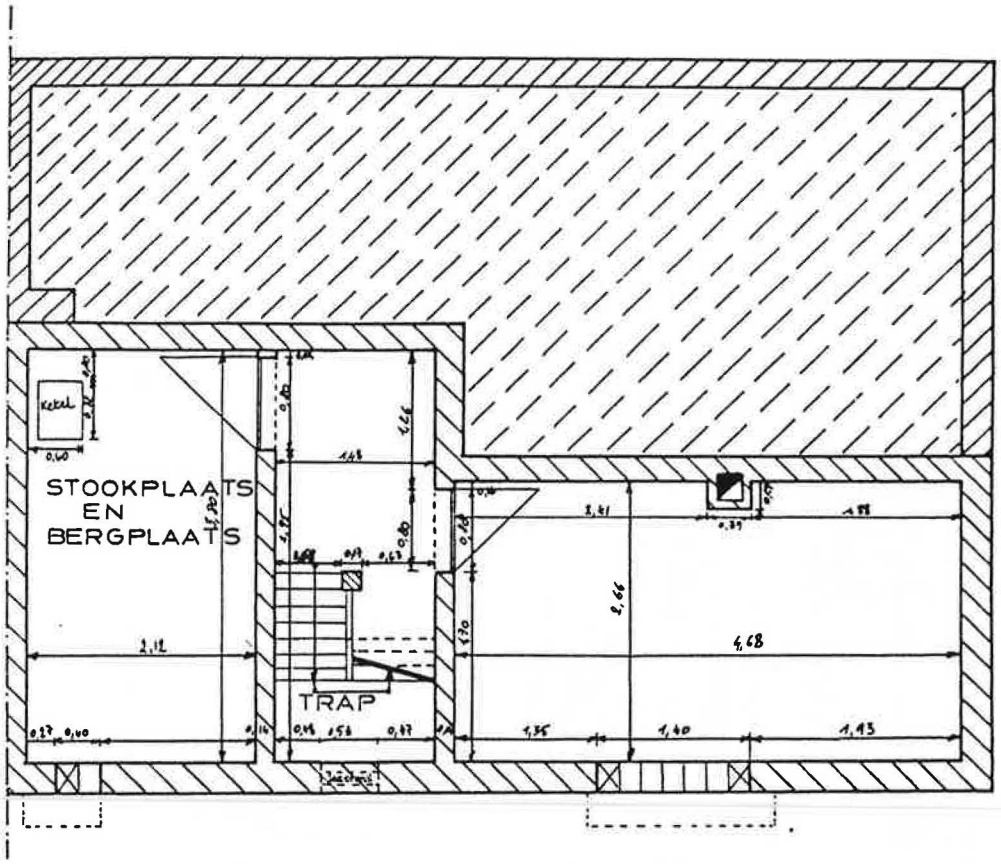


Fig. 6 KELDER

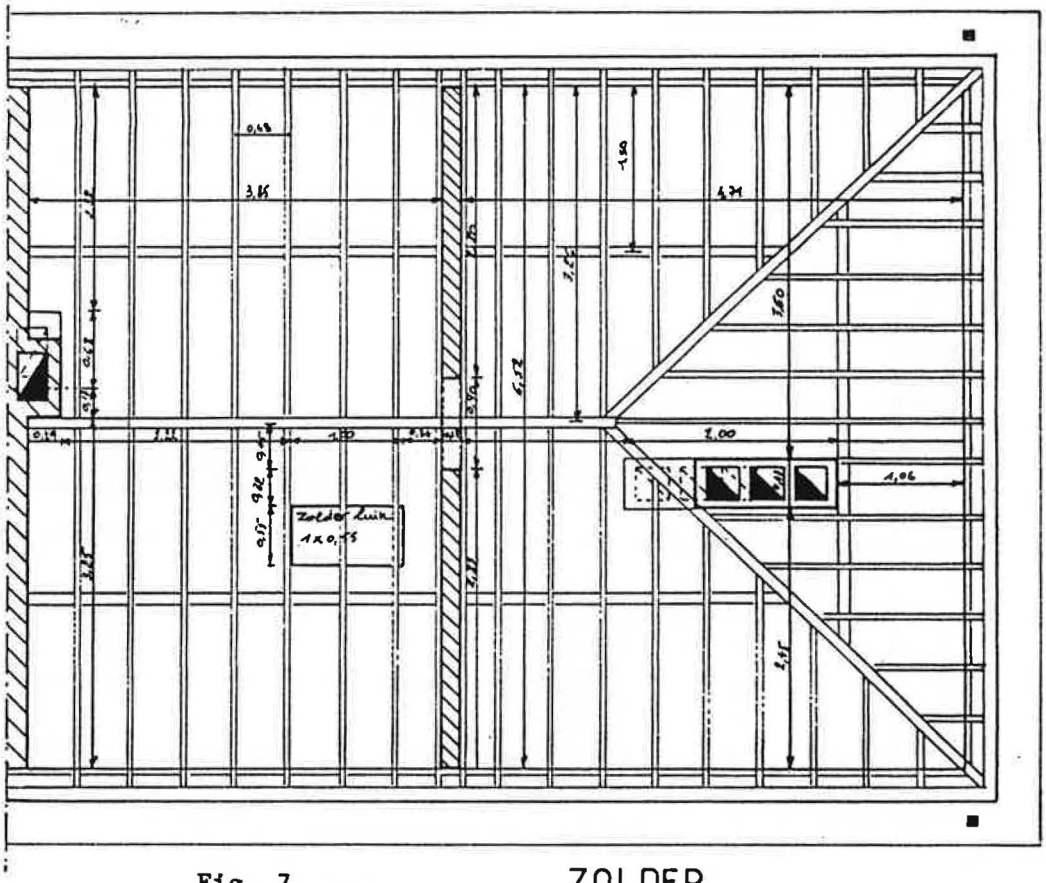


Fig. 7 ZOLDER

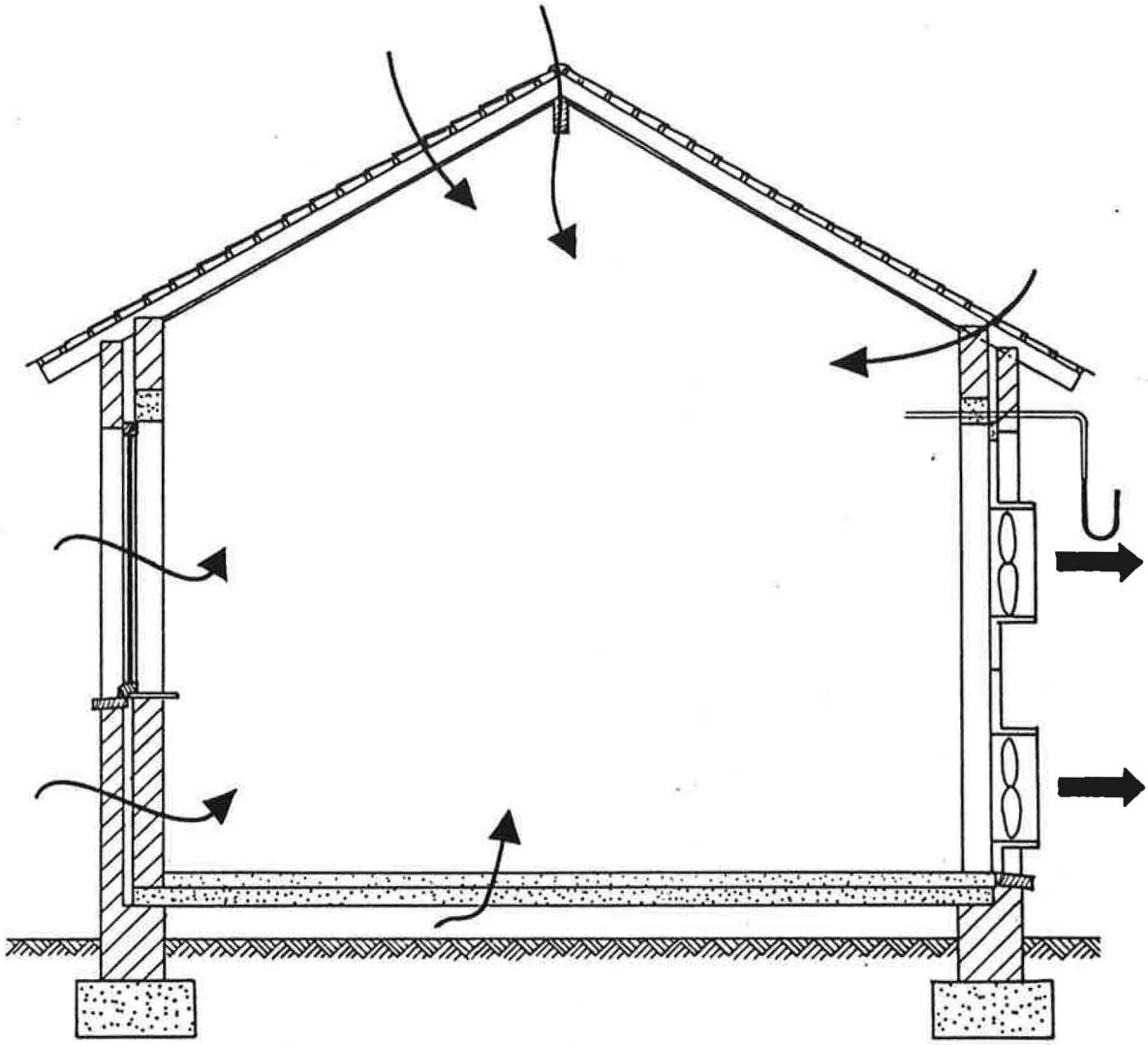


Fig. 8

APPENDIX 2
RESULTS OF THE MEASURING CAMPAIGN 1986-1987

HOUSE NR	NAME	A	B	C	D	E	F
1	BEUKENSTRAAT 13	X				X	X
2	OLMENSTRAAT 9	X		X		X	
3	BERKENSTRAAT 32	X		X		X	
4	BOSBESSENSTRAAT 1	X		X	X	X	
5	BERKENSTRAAT 46	X	X	X		X	
6	LIJSTERBESSENSTRAAT 6	X		X		X	
7	EIKENSTRAAT 32	X				X	
8	EIKENSTRAAT 33	X				X	X
9	POPULIERENSTRAAT 18	X		X	X	X	
10	BEUKENSTRAAT 21	X	X		X		
11	BEUKENSTRAAT 23	X					
12	BERKENSTRAAT 46	X					
13	OLMENSTRAAT 9		X		X		
14	OLMENSTRAAT 26						X
15	OLMENSTRAAT 11						X
16	BEUKENSTRAAT 7						X
17	BERKENSTRAAT 30						X
18	KANADASTRAAT 9						X
19	OLMENSTRAAT 34						X

A	=	short term measuring	see appendix 2a
B	=	long term measuring	see appendix 2b
C	=	endoscopic view of the cavity	see text 2.1.2
D	=	measuring the air-tightness	see appendix 1
E	=	observation of the damage	see text 2.1.2
F	=	energy consumption	see appendix 2c

2A SHORT TERM MEASUREMENTS

2B LONG TERM MEASUREMENTS

2C ENERGY CONSUMPTION

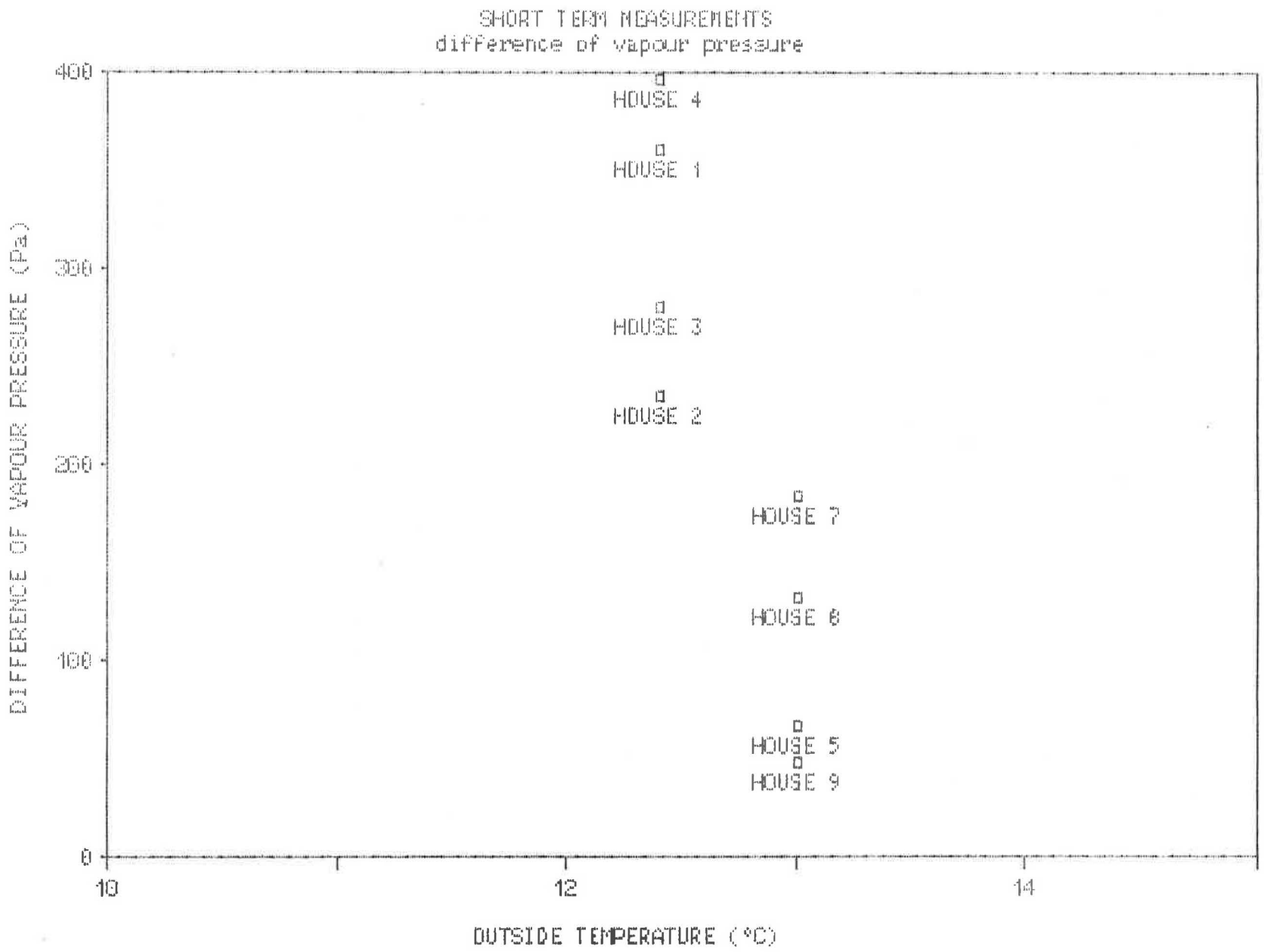
APPENDIX 2A

Results of the short term measurements

2A.0 figure : average difference of vapour pressure for the whole dwelling in relation to outside temperature

2A.1 data of the short term measurements of all the houses visited per room

2A.7 mean results for all the houses / rooms


SHORT TERM MEASUREMENTS
difference of vapour pressure
DIFFERENCE OF VAPOUR PRESSURE (Pa)
400
300
200
100
0
HOUSE 4
HOUSE 1
HOUSE 3
HOUSE 2
HOUSE 7
HOUSE 8
HOUSE 5
HOUSE 9
10
12
14
OUTSIDE TEMPERATURE (°C)

APPENDIX 3
DATA OF INDIVIDUAL HOUSES
SHORT TERM MEASUREMENTS

OUTSIDE 15/4/86	TEMP.	R.H.	V.P.(Pe)
	C	%	Pa
	12.4	58.0	828

HOUSE 1 BEUKENSTRAAT 13 15/4/86	TEMP. C	R.H. %	V.P.(Pi) Pa	Td C	Pi-Pe Pa
cellar	15.6	67.3	1183	9.5	355
stokehold	17.8	55.3	1116	8.6	288
living room	22.6	44.8	1219	9.9	391
kitchen	21.5	44.0	1119	8.6	291
bathroom	21.4	44.5	1125	8.7	297
hall	21.2	61.3	1528	13.3	700
slp.r.1	21.4	47.3	1194	9.6	366
slp.r.2	20.0	48.2	1117	8.6	289
slp.r.3	21.4	45.9	1159	9.1	331
slp.r.4	21.6	44.2	1129	8.7	301
staircase	22.0	42.1	1102	8.4	274
mean value	21.5				353

HOUSE 2 OLMENSTRAAT 9 15/4/86	TEMP. C	R.H. %	V.P.(Pi) Pa	Td C	Pi-Pe Pa
cellar	12.3	83.4	1002	7.0	174
living room	21.2	50.5	1259	10.4	431
kitchen	17.8	51.3	1036	7.5	208
hall	15.7	57.7	1020	7.3	192
slp.r.1 o	13.8	83.6	995	6.9	167
slp.r.2 o	14.4	84.3	1045	7.6	217
slp.r.3 o	15.0	61.3	1036	7.5	208
waskamer	15.6	60.2	1057	7.8	229
staircase	15.2	61.5	1053	7.7	225
mean value	16.1				228

HOUSE 3 BERKENSTRAAT 32 15/4/86	TEMP. C	R.H. %	V.P.(Pi) Pa	Td C	Pi-Pe Pa
cellar	15.6	66.4	1167	9.2	339
stokehold	16.2	59.1	1079	3.1	251
living room	21.4	48.0	1211	9.8	383
kitchen	20.0	57.0	1322	11.1	494
hall	18.2	60.6	1254	10.3	426
slp.r.1 o	15.9	57.9	1037	7.5	209
slp.r.2 o	14.7	58.2	965	6.5	137
slp.r.3 o	12.9	67.5	996	6.9	168
slp.r.4 o	14.9	62.1	1042	7.6	214
Staircase	16.4	56.0	1035	7.5	207
mean value	16.8				283

HOUSE 4 BOSBESSENSTRAAT 1 15/4/86	TEMP. C	R.H. %	V.P.(Pi) Pa	Td C	Pi-Pe Pa
cellar	17.6	60.7	1211	9.8	383
living room	21.3	53.4	1341	11.3	513
kitchen	20.2	51.4	1205	9.7	377
slp.r.1	18.0	57.1	1168	9.3	340
slp.r.2	17.7	58.4	1172	9.3	344
slp.r.3	17.9	58.6	1191	9.6	363
slp.r.4	18.4	58.4	1224	10.0	396
staircase	19.0	58.2	1268	10.5	440
mean value	18.9				395

OUTSIDE 29/4/86	TEMP. C	R.H. %	V.P.(Pe) Pa
FORENOON	12,8	68,4	1002
AFTERNOON	13,4	69,0	1052

HOUSE 5 BERKENSTRAAT 46 29/4/86	TEMP. C	R.H. %	V.P.(Pi) Pa	Td C	Pi-Pe Pa
cellar	16.7	60.6	1141	8.9	139
stokehold	16.8	58.1	1103	8.4	101
living room	17.2	58.6	1140	8.9	138
kitchen	17.0	60.1	1153	9.1	151
hall	16.4	59.4	1093	8.3	96
slp.r.1 o	15.4	59.9	1040	7.5	38
slp.r.2 o	14.0	63.6	1011	7.1	9
slp.r.3 o	14.0	60.1	952	6.3	-50
slp.r.4 o	14.2	67.8	1089	8.2	87
mean value	15,5				79

HOUSE 6 LIJSTERBESSENSTRAAT 6 29/4/86	TEMP. C	R.H. %	V.P.(Pi) Pa	Td C	Pi-Pe Pa
cellar	15.3	67.5	1201	9.7	199
living room	21.6	56.8	1470	12.7	469
kitchen	16.8	63.2	1199	9.6	197
hall	15.6	63.7	1119	8.6	117
slp.r.1 o	16.4	60.2	1113	8.5	111
slp.r.2 o	15.6	61.9	1088	8.2	86
slp.r.3 o	14.2	62.2	998	6.9	-4
slp.r.4 o	13.7	63.5	987	6.8	-15
staircase	14.6	66.3	1093	8.3	91
mean value	16.1				139

HOUSE 7 EIKSTRAAT 32 29/4/86	TEMP. C	R.H. %	V.P.(Pi) Pa	Td C	Pi-Pe Pa
slp.r.1 c	17.7	60.8	1221	9.9	169
slp.r.2 c	17.6	61.5	1228	10.0	176
slp.r.3 c	18.0	59.5	1218	9.9	166
bathroom	17.5	62.3	1234	10.1	182
staircase	17.6	64.0	1278	10.6	226
mean value	17.7				184

HOUSE 8 EIKSTRAAT 33 15/4/86	TEMP. C	R.H. %	V.P.(Pi) Pa	Td C	Pi-Pe Pa
cellar	13.6	65.3	1398	11.9	396
living room	13.4	53.6	1125	3.7	123
kitchen	13.4	53.6	1125	3.7	123
hall	18.0	63.6	1301	10.9	299
slp.r.1 O	15.9	60.5	1084	8.1	82
slp.r.2	17.0	60.9	1170	9.3	168
slp.r.3 O	15.9	59.7	1063	7.9	66
slp.r.4 O	15.7	60.3	1066	7.9	64
staircase	17.6	56.6	1130	8.8	128
mean value	17.1				161

HOUSE 9 POPULIERENSTRAAT 18 29/4/86	TEMP. C	R.H. %	V.P.(Pi) Pa	Td C	Pi-Pe Pa
cellar	18.0	57.9	1184	9.5	132
living room	17.0	56.7	1089	9.5	37
kitchen O	16.4	57.7	1066	7.9	14
hall west.	16.0	60.6	1093	8.3	41
Hall downst.	16.2	59.1	1079	8.1	27
slp.r.1	16.0	60.6	1093	8.3	41
slp.r.2 O	16.4	64.6	1193	8.3	141
slp.r.3 O	16.2	59.1	1079	8.1	27
slp.r.4	16.7	57.2	1073	8.1	26
left hall	15.6	63.7	1119	8.6	67
mean value	16.5				55

OUTSIDE 15/10/86	TEMP. C	R.H. %	V.P.(Pe) Pa
10.30 AM	19,8	72,5	1676

HOUSE 10 BEUKENSTRAAT 21 15/10/86	TEMP. C	R.H. %	V.P.(Pi) Pa	Td C	Pi-Pe Pa
cellar	17.1	81.2	1583	13.3	-97
living room	20.6	76.3	1853	16.3	177
kitchen	21.0	75.0	1865	16.4	189
bathroom	19.6	78.1	1783	15.7	107
hall	19.6	75.7	1727	15.2	51
slp.r.1 c	19.6	75.7	1727	15.2	51
slp.r.2 c	20.0	71.0	1663	14.6	-13
slp.r.3 c	19.8	76.6	1770	15.6	94
slp.r.4 c	19.4	74.7	1684	14.8	8
mean value	19.6				63

OUTSIDE 15/10/86	TEMP. C	R.H. %	V.P.(Pe) Pa
1	21.0	65.7	1634
2	21.1	65.0	1627
3	21.1	69.6	1742

HOUSE 11 BEUKENSTRAAT 23 15/10/86 (1)	TEMP. C	R.H. %	V.P.(Pi) Pa	Td C	Pi-Pe Pa
cellar	17.8	77.9	1590	13.9	-44
living room o	20.9	69.0	1697	14.9	63
kitchen o	21.2	68.9	1736	15.3	102
hall c	21.4	64.5	1644	14.4	10
slp.r.1 o	21.3	64.1	1676	14.7	42
slp.r.2 o	21.3	64.9	1695	14.9	61
slp.r.3 o	20.8	68.6	1685	14.8	51
slp.r.4 o	20.1	72.0	1694	14.9	60
mean value	21.0				43

HOUSE 3 BERKENSTRAAT 46 15/10/86 (2)	TEMP. C	R.H. %	V.P.(Pi) Pa	Td C	Pi-Pe Pa
cellar	19.4	78.9	1778	15.6	151
living room o	21.8	65.6	1714	15.1	37
kitchen o	21.4	63.0	1607	14.1	-20
hall o	21.6	66.2	1709	15.0	82
slp.r.1 o	23.0	63.1	1772	15.6	145
slp.r.2 o	22.0	62.9	1662	14.6	35
slp.r.3 o	21.6	64.7	1669	14.6	42
slp.r.4 o	21.6	66.2	1709	15.0	82
mean value	22.0				76

HOUSE 9 POPULIERSTRAAT 18 15/10/86 (3)	TEMP. C	R.H. %	V.P.(Pi) Pa	Td C	Pi-Pe Pa
cellar	20.2	74.4	1763	15.5	21
living room	22.1	71.8	1912	16.9	170
kitchen	22.6	69.9	1919	16.9	177
hall	21.2	69.7	1754	15.4	12
slp.r.1 o	21.0	75.0	1865	16.4	123
slp.r.2 o	21.4	69.0	1761	15.5	19
slp.r.3 o	21.0	65.7	1634	14.3	-108
bathroom c	20.8	71.7	1762	15.5	20
mean value	21.0				54

OUTSIDE 21/10/86	TEMP. C	R.H. %	V.P.(Pe) Pa
	10,8	98,8	1280

HOUSE 2 OLMENSTRAAT 9 15/4/86	TEMP. C	R.H. %	V.P.(Pi) Pa	Td C	Pi-Pe Pa
cellar	14.3	67.0	1093	8.3	-187
living room	20.6	57.3	1403	12.0	123
kitchen	19.1	56.9	1259	10.4	-21
hall	15.6	65.6	1163	9.2	-117
slp.r.1 c	14.3	68.5	1154	9.1	-126
slp.r.2 c	14.3	68.5	1154	9.1	-126
slp.r.3 c	15.0	66.3	1140	8.9	-140
slp.r.4 c	14.1	66.3	1076	8.0	-204
staircase					
mean value	16.3				-100

SHORT TERM MEASUREMENTS : Ti-Te MEAN VALUES
PER HOUSE AND PER ROOM

HOUSE	CELLAR	STOKEHOLD	AVERAGE
1	3.2	5.4	4.3
2	0.4		0.4
3	3.2	3.8	3.5
4	5.2		5.2
5	3.7	3.8	3.8
6	2.8		2.8
7			
8	5.6		5.6
9	5.0		5.0
AVERAGE 1->4	3.0	4.6	3.8
AVERAGE 5->9	4.3	3.8	4.0
AVERAGE	3.1	4.3	3.7

HOUSE	LR	KITCHEN	HALL	BATHROOM	AVERAGE
1	10.2	9.1	8.8	9.0	9.3
2	8.8	5.4	3.3		5.8
3	9.0	7.6	5.8		7.5
4	8.9	7.8			8.4
5	4.2	4.0	3.4		3.9
6	8.8	3.8	2.6		5.1
7				4.5	4.5
8	5.4	5.4	5.0		5.3
9	4.0	3.4	3.0		3.5
AVERAGE 1->4	9.2	7.5	6.0	9.0	7.9
AVERAGE 5->9	5.6	4.2	3.5	4.5	4.4
AVERAGE	8.3	6.3	4.8	9.0	7.1

HOUSE	SLP1	SPL2	SLP3	SLP4	STAIRCASE	AVERAGE
1	9.0	7.6	9.0	9.2	9.6	8.9
2	1.4	2.0	2.6	3.2	2.8	2.4
3	3.5	2.3	0.5	2.5	4.0	2.6
4	5.6	5.3	5.5	6.0	6.6	5.8
5	2.4	1.0	1.0	1.2		1.4
6	3.4	2.6	1.2	0.7	1.6	1.9
7	4.7	4.6	5.0		4.6	4.7
8	2.9	4.0	2.9	2.7	4.6	3.4
9	3.0	3.4	3.2	3.7	2.6	3.2
AVERAGE 1->4	4.9	4.3	4.4	5.2	5.7	4.9
AVERAGE 5->9	3.3	3.1	2.7	2.1	3.4	2.9
AVERAGE	4.2	3.5	3.3	3.8	4.9	3.9

HOUSE	HOUSE	0 + 1 floor
1	8.2	9.1
2	3.3	3.7
3	4.2	4.4
4	6.4	6.5
5	2.7	2.5
6	3.1	3.1
7	4.7	4.7
8	4.3	4.1
9	3.5	3.3
AVERAGE 1->4	5.8	6.2
AVERAGE 5->9	3.7	3.6
AVERAGE	5.0	5.3

SHORT TERM MEASUREMENTS : Ti MEAN VALUES
PER HOUSE AND PER ROOM

HOUSE	CELLAR	STOKEHOLD	
1	15.6	17.8	16.7
2	12.8		12.8
3	15.6	16.2	15.9
4	17.6		17.6
5	16.7	16.8	16.8
6	15.8		15.8
7			
8	18.6		18.6
9	18.0		18.0
AVERAGE 1->4	15.4	17.0	16.2
AVERAGE 5->9	17.3	16.8	17.0
AVERAGE	15.7	16.9	16.3

HOUSE	LR	KITCHEN	HALL	BATHROOM	0.0
1	22.6	21.5	21.2	21.4	21.7
2	21.2	17.8	15.7		18.2
3	21.4	20.0	18.2		19.9
4	21.3	20.2			20.8
5	17.2	17.0	16.4		16.9
6	21.8	16.8	15.6		18.1
7				17.5	17.5
8	18.4	18.4	18.0		18.3
9	17.0	16.4	16.0		16.5
AVERAGE 1->4	21.6	19.9	18.4	21.4	20.3
AVERAGE 5->9	18.6	17.2	16.5	17.5	17.4
AVERAGE	20.9	18.9	17.4	21.4	19.7

HOUSE	SLP1	SPL2	SLP3	SLP4	STAIRCASE	AVERAGE
1	21.4	20.0	21.4	21.6	22.0	21.3
2	13.8	14.4	15.0	15.6	15.2	14.8
3	15.9	14.7	12.9	14.9	16.4	15.0
4	18.0	17.7	17.9	18.4	19.0	18.2
5	15.4	14.0	14.0	14.2		14.4
6	16.4	15.6	14.2	13.7	14.6	14.9
7	17.7	17.6	18.0		17.6	17.7
8	15.9	17.0	15.9	15.7	17.6	16.4
9	16.0	16.4	16.2	16.7	15.6	16.2
AVERAGE 1->4	17.3	16.7	16.8	17.6	18.2	17.3
AVERAGE 5->9	16.3	16.1	15.7	15.1	16.4	15.9
AVERAGE	16.8	16.1	15.9	16.4	17.4	16.5

HOUSE	HOUSE	0 + 1 floor
1	20.6	21.5
2	15.7	16.1
3	16.6	16.8
4	18.8	18.9
5	15.7	15.5
6	16.1	16.1
7	17.7	17.7
8	17.3	17.1
9	16.5	16.3
AVERAGE 1->4	18.2	18.6
AVERAGE 5->9	16.7	16.6
AVERAGE	17.6	17.9

SHORT TERM MEASUREMENTS : Pi-Pe MEAN VALUES
PER HOUSE AND PER ROOM

HOUSE	CELLAR	STOKEHOLD	AVERAGE
1	355	288	322
2	174		174
3	339	251	295
4	383		383
5	139	101	120
6	199		199
7			
8	396		396
9	132		132
AVERAGE 1->4	313	270	291
AVERAGE 5->9	217	101	159
AVERAGE	265	213	239

HOUSE	LR	KITCHEN	HALL	BATHROOM	AVERAGE
1	391	291	700	297	420
2	431	208	192		277
3	383	494	426		434
4	513	377			445
5	138	151	96		128
6	469	197	117		261
7				182	182
8	123	123	299		182
9	37	14	27		26
AVERAGE 1->4	430	343	439	297	377
AVERAGE 5->9	192	121	135	182	157
AVERAGE	388	286	306	297	319

HOUSE	SLP1	SPL2	SLP3	SLP4	STAIRCASE	AVERAGE
1	366	289	331	301	274	312
2	167	217	208	229	225	209
3	209	137	168	214	207	187
4	340	344	363	396	440	377
5	38	9	-50	87		21
6	111	86	-4	-15	91	54
7	169	176	166		226	184
8	82	168	66	64	128	102
9	41	141	27	26	67	60
AVERAGE 1->4	271	247	268	285	287	271
AVERAGE 5->9	88	116	41	41	128	83
AVERAGE	205	180	169	202	247	201

HOUSE	HOUSE	0 + 1 floor
1	353	360
2	228	235
3	283	280
4	395	396
5	79	67
6	139	132
7	184	184
8	161	132
9	57	48
AVERAGE 1->4	313	318
AVERAGE 5->9	124	116
AVERAGE	251	253

APPENDIX 2B
LONG TERM MEASURING RESULTS

buitenklimaat (*=ukkel)

	temp (C)	R.V. (%)	p(e) (Pa)
21-10	10.1	89.0	1089.2
22-10	9.8	97.0	1163.5
23-10	8.4	79.0	862.0
24-10	7.5	83.0	851.7
25-10	8.2	82.0	882.6
26-10	8.6	75.0	829.6
27-10	8.3	84.0	910.3
28-10	9.4	97.0	1132.6
29-10	10.4	80.6	1006.5
30-10	8.2	77.1	829.7
31-10	9.8	84.5	1007.6

Beukenstraat 21, woonkamer

	temp (C)	R.V. (%)	p(i) (Pa)	Td (C)	p(i)-p(e) (Pa)
21-10					
22-10	20.3	73.5	1733.2	15.2	569.7
23-10	19.7	66.2	1505.2	13.1	643.1
24-10	20.5	61.8	1476.4	12.8	624.7
25-10	19.3	67.7	1501.4	13.0	618.8
26-10	20.3	66.8	1576.3	13.8	746.8
27-10	19.6	68.8	1554.6	13.6	644.3
28-10	20.0	67.6	1565.8	13.7	433.2
29-10	18.6	66.8	1418.1	12.2	411.6
30-10	19.3	60.0	1330.7	11.2	501.0
31-10	19.1	61.4	1344.8	11.4	337.2

Beukenstraat 21, slaapkamer

	temp (C)	R.V. (%)	p(i) (Pa)	Td (C)	p(i)-p(e) (Pa)
21-10					
22-10					
23-10					
24-10					
25-10					
26-10					
27-10					
28-10					
29-10	14.8	62.8	1047.1	7.6	40.6
30-10	14.0	63.6	1006.9	7.1	177.2
31-10					

Beukenstraat 21, kelder

	temp (C)	R.V. (%)	p(i) (Pa)	Td (C)	p(i)-p(e) (Pa)
21-10					
22-10	15.6	81.7	1434.2	12.3	270.7
23-10	15.2	65.7	1124.1	8.7	262.1
24-10	14.2	62.0	994.4	6.9	142.7
25-10	14.5	67.6	1105.5	8.4	222.9
26-10	14.5	65.0	1032.9	7.8	203.3
27-10	15.0	66.0	1114.7	8.6	204.4
28-10	15.0	68.1	1150.2	9.0	17.6
29-10	14.9	71.0	1191.5	9.6	185.0
30-10	15.0	63.1	1065.8	7.9	236.1
31-10	15.0	66.8	1128.3	7.4	120.7

Beukenstraat 21 NOVEMBER

	buitenklimaat (*=ukkel)			Beukenstraat 21, woonkamer					
	temp (C)	R.V. (%)	p(i) (Pa)	temp (C)	R.V. (%)	p(i) (Pa)	Td (C)	p(i)-p(e) (Pa)	
01-11	11.2	91.0	1198.6	19.7	74.5	1693.8	14.9	495.2	
02-11	8.4	76.8	840.1	19.7	68.9	1566.5	13.7	726.4	
03-11	8.6	82.0	907.0	19.1	69.1	1513.5	13.2	606.5	
04-11	7.1	93.3	922.1	19.1	68.7	1504.7	13.1	582.6	
05-11	7.4	89.3	907.0	19.1	62.6	1371.1	11.7	464.1	
06-11	8.4	82.0	894.7	16.5	66.3	1232.7	10.1	338.0	
07-11	5.7	85.8	779.3	18.4	62.0	1299.8	10.8	520.5	
08-11	7.0	82.9	822.9	19.4	63.1	1408.1	12.1	585.2	
09-11	5.4	76.4	674.5	19.9	63.8	1468.7	12.7	794.2	
10-11	10.6	75.5	949.1	18.6	64.5	1369.3	11.6	420.2	
11-11	13.3	89.7	1361.3	18.5	67.9	1432.5	12.3	71.2	
12-11	10.2	90.9	1108.9	18.8	72.0	1547.8	13.5	438.9	
13-11	11.7	73.0	993.9	17.4	70.5	1387.9	11.8	394.0	Period 1
14-11	12.3	78.3	1104.9	17.8	69.4	1401.1	12.0	296.2	
15-11	12.1	81.0	1132.4	18.7	71.2	1521.0	13.2	388.6	
16-11	8.2	96.8	1044.1	18.7	72.8	1555.2	13.6	422.8	
17-11	9.0	91.7	1045.6	17.9	69.6	1414.1	12.1	370.0	
18-11	7.8	87.3	911.2	18.1	64.8	1333.2	11.2	422.0	
19-11	10.0	93.9	1142.8	18.8	71.9	1545.6	13.5	402.8	
20-11	7.8	89.0	932.2	18.5	65.2	1375.5	11.7	443.3	
21-11	4.8	78.8	672.4	18.8	58.6	1259.7	10.4	587.3	
22-11	7.1	76.7	764.5	19.1	66.1	1447.8	12.5	683.3	Period 2
23-11	5.6	73.5	661.5	19.4	61.7	1376.9	11.7	715.4	
24-11	6.6	76.7	742.7	20.5	58.5	1397.6	11.9	654.9	
25-11	10.8	74.7	961.9	20.6	61.9	1487.9	12.9	526.0	
26-11	9.0	74.8	852.4	18.9	67.9	1468.8	12.7	616.4	
27-11	5.4	80.7	718.9	18.2	61.5	1273.3	10.5	554.4	
28-11	3.1	79.2	596.4	18.2	57.0	1180.1	9.4	583.7	
29-11	0.8	73.3	468.9	18.8	57.0	1225.3	10.0	756.4	Period 3
30-11	1.6	74.1	501.8	18.5	60.1	1267.9	10.5	766.1	

	Beukenstraat 21, slaapkamer					Beukenstraat 21, kelder					
	temp (C)	R.V. (%)	p(i) (Pa)	Td (C)	p(i)-p(e) (Pa)	temp (C)	R.V. (%)	p(i) (Pa)	Td (C)	p(i)-p(e) (Pa)	
01-11						15.0	74.9	1265.1	10.4	66.5	
02-11						14.8	65.9	1098.8	8.3	258.7	
03-11						15.0	62.5	1055.6	7.7	148.6	
04-11						15.0	64.3	1086.0	8.2	163.9	
05-11						14.1	64.0	1019.8	7.3	112.8	
06-11						14.0	66.1	1046.5	7.6	151.8	
07-11	12.4	65.1	928.3	5.9	33.6	14.0	61.9	980.0	6.7	200.7	
08-11	12.2	69.3	975.2	6.6	152.3	13.8	62.4	975.1	6.6	152.2	
09-11	11.9	65.1	898.2	5.4	223.7	13.2	57.2	859.5	4.8	185.0	
10-11	12.8	68.5	1002.8	7.0	53.7	13.8	62.5	976.7	6.6	27.6	
11-11	14.6	66.8	1099.7	8.3	261.6	14.2	68.4	1097.1	8.3	-264.2	
12-11						14.2	71.9	1153.2	9.1	44.3	
13-11						14.5	71.4	1167.6	9.2	173.7	Period 1
14-11						15.0	73.8	1246.5	10.2	141.6	
15-11						15.0	74.4	1256.6	10.3	124.2	
16-11						15.0	71.6	1209.3	9.8	165.2	
17-11						15.0	67.2	1135.0	8.8	89.4	
18-11						14.1	65.8	1048.5	7.6	137.3	
19-11						14.0	75.2	1190.6	9.5	47.8	
20-11						13.6	69.5	1072.0	8.0	139.8	
21-11	13.0	68.3	1013.0	7.2	340.6	13.0	61.0	904.8	5.6	232.4	
22-11	13.0	74.1	1099.1	8.3	334.6	13.0	60.4	895.9	5.4	131.4	Period 2
23-11	13.9	66.0	1038.1	7.5	376.6	12.6	59.0	852.4	4.7	190.9	
24-11	16.0	59.4	1069.8	8.0	327.1	12.7	61.9	900.2	5.5	157.5	
25-11	14.8	67.9	1132.1	8.8	170.2	13.0	71.7	1063.5	7.9	101.6	
26-11	15.1	71.6	1217.1	9.9	364.7	13.0	67.3	998.2	6.9	145.8	
27-11	14.4	64.0	1039.9	7.5	321.0	13.0	70.8	1050.1	7.7	331.2	
28-11	14.1	62.8	1000.7	7.0	404.3	12.8	57.6	843.2	4.5	246.8	
29-11	13.9	58.4	1045.1	7.6	576.2	12.1	69.7	974.4	6.6	505.5	Period 3
30-11	13.1	60.3	900.2	5.5	398.4	11.9	49.0	676.1	1.4	174.3	

Beukenstraat 21 DECEMBER

	buitenklimaat (*=ukkel)			Beukenstraat 21, woonkamer					
	temp (C)	R.V. (%)	p(i) (Pa)	temp (C)	R.V. (%)	p(i) (Pa)	Td (C)	p(i)-p(e) (Pa)	
01-12	1.6	80.4	542.5	18.1	54.4	1119.2	8.6	576.7	Period 3
02-12	6.2	81.7	769.8	17.5	57.2	1133.2	8.8	363.4	
03-12	7.0	67.6	674.2	18.5	58.8	1240.5	10.1	566.3	
04-12	7.6	65.1	671.6	17.4	57.7	1135.9	8.8	464.3	
05-12	8.3	63.8	693.6	17.2	56.0	1088.5	8.2	394.9	
06-12	7.4	84.9	866.2	17.8	62.0	1251.7	10.3	385.5	
07-12	5.2	83.7	735.2	17.5	59.5	1178.8	9.4	443.6	Period 4
08-12	11.3	73.2	967.9	14.8	71.5	1192.1	9.6	224.2	
09-12	8.7	73.4	812.9	15.3	66.1	1138.2	8.9	325.3	
10-12	5.0	84.8	733.6	15.0	63.3	1069.1	7.9	335.5	
11-12	5.9	77.4	707.6	14.8	63.0	1050.4	7.7	342.8	
12-12	5.1	87.1	756.1						
13-12	3.8	85.1	674.3						
14-12	2.8	96.7	716.7						
15-12	2.4	91.6	657.2						Period 5
16-12	3.8	86.8	690.2						
17-12	4.3	91.3	747.7						
18-12	7.4	89.7	917.2						
19-12	4.1	73.0	591.5						
20-12	2.6	85.0	619.2						
21-12	2.1	83.0	583.4						
22-12	0.9	90.0	580.2						
23-12	0.8	82.0	524.9						
24-12	-1.7	86.0	458.4						
25-12	-1.0	92.0	516.4						
26-12	2.3	88.0	627.5						
27-12	3.3	82.0	627.9						
28-12	6.2	85.0	797.5						
29-12	7.7	83.0	863.4						
30-12	8.6	93.0	1028.6						
31-12	8.3	81.0	877.8						

Beukenstraat 21 DECEMBER

	Beukenstraat 21, slaapkamer					Beukenstraat 21, kelder					
	temp (C)	R.V. (%)	p(i) (Pa)	Td (C)	p(i)-p(e) (Pa)	temp (C)	R.V. (%)	p(i) (Pa)	Td (C)	p(i)-p(e) (Pa)	
01-12	12.9	61.0	898.8	5.5	356.3	11.0	50.0	649.9	0.8	107.4	Period 3
02-12	15.5	62.3	1086.6	8.2	316.8	11.9	62.3	859.6	4.8	89.8	
03-12	16.2	62.3	1136.4	8.8	462.2	12.6	62.9	908.8	5.6	234.6	
04-12	14.4	62.5	1015.5	7.2	343.9	12.2	63.1	887.9	5.3	216.3	
05-12	13.9	59.9	942.2	6.1	248.6	12.0	64.7	898.6	5.6	205.0	
06-12	14.5	64.0	1046.6	7.6	180.4	12.5	69.8	1001.8	7.0	135.6	
07-12	12.7	62.8	913.3	5.7	178.1	12.4	66.5	948.2	6.2	213.0	Period 4
08-12	14.0	70.4	1583.2	8.6	615.3	13.0	75.3	1116.8	8.6	148.9	
09-12	14.2	63.1	1012.1	7.2	199.2	12.6	70.4	1017.1	7.2	204.2	
10-12	12.2	70.4	990.7	6.8	257.1	12.3	64.5	913.6	5.7	180.0	
11-12	11.6	70.5	953.5	6.3	245.9	12.5	60.6	869.8	6.0	162.2	
12-12	11.5	75.4	1013.1	7.2	257.0	11.7	63.1	859.1	4.8	103.0	
13-12	11.8	70.5	973.1	6.6	298.8	11.0	63.3	822.7	4.2	148.4	
14-12	12.9	68.8	1013.8	7.2	297.1	11.0	64.5	838.3	4.4	121.6	
15-12	12.5	64.8	930.1	6.0	272.9	11.2	62.8	827.1	4.3	169.9	Period 5
16-12	12.5	65.8	944.4	6.1	254.2	11.8	60.8	833.3	4.7	143.1	
17-12	13.6	67.0	1033.5	7.4	285.8	11.4	58.5	780.8	3.4	33.1	
18-12	14.9	66.7	1119.3	8.6	202.1	11.0	58.7	762.9	3.1	-154.3	
19-12	13.8	60.5	945.4	6.1	353.9	11.0	57.3	744.7	2.7	153.2	
20-12	14.7	62.2	1030.4	7.4	411.2	11.6	61.8	835.8	4.4	216.6	
21-12	18.8	52.6	1130.7	8.8	547.3	11.0	64.0	831.8	4.3	248.4	
22-12	17.9	57.6	1170.3	9.3	590.1	11.0	63.3	822.7	4.2	242.5	
23-12						11.0	67.0	870.8	5.0	345.9	
24-12						12.0	75.4	1047.2	7.6	588.8	
25-12						12.0	78.6	1091.6	8.2	575.2	
26-12						12.0	79.1	1098.5	8.3	471.0	
27-12						12.0	75.3	1045.8	7.6	417.9	
28-12						12.8	78.6	1150.6	9.0	353.1	
29-12						15.9	76.4	1367.2	11.6	503.8	
30-12						11.8	64.0	877.2	5.1	-151.4	
31-12						11.6	59.3	802.0	3.8	-75.8	

Beukenstraat 21

JANUARI

	buitenklimaat (*=ukkel)			Beukenstraat 21, woonkamer				
	temp (C)	R.V. (%)	p(i) (Pa)	temp (C)	R.V. (%)	p(i) (Pa)	Td (C)	p(i)-p(e) (Pa)
01-01	9.0	98.0	1113.7					
02-01	6.0	87.0	805.0					
03-01	-1.5	69.0	373.3					
04-01	0.7	82.0	521.1					
05-01	3.5	82.0	636.8					
06-01	4.0	82.0	659.7					
07-01	-1.4	63.0	343.3					
08-01	-1.2	83.0	459.0					
09-01	-2.6	82.0	498.6					
10-01	-3.1	82.0	480.3					
11-01	-9.9	68.0	193.4					
12-01	-11.6	75.0	186.2					
13-01	-10.8	81.0	214.4					
14-01	-10.6	65.0	174.8					
15-01	-11.0	65.0	169.3					
16-01	-10.1	71.0	198.7					
17-01	-6.8	77.0	279.1					
18-01	-5.5	87.0	348.5					
19-01	-5.0	83.0	345.4					
20-01	-3.4	87.0	408.6					
21-01	-5.0	100.0	416.0	20.6	50.0	1201.9	9.7	785.9
22-01	-2.4	100.0	506.0	20.4	52.1	1237.0	10.1	731.0
23-01	-0.7	100.0	573.8	20.5	59.4	1419.1	12.2	845.3
24-01	-0.2	98.9	583.3	20.8	61.2	1489.3	12.9	906.0
25-01	-1.9	100.0	525.2	21.3	51.6	1294.9	10.8	769.7
26-01	-0.9	96.7	548.4	20.3	56.3	1328.5	11.2	780.1
27-01	-1.4	95.0	517.7	20.7	49.5	1197.2	9.6	679.5
28-01	0.1	96.0	584.0	20.5	57.0	1361.7	11.5	777.7
29-01	-1.0	75.0	420.9	19.9	54.0	1243.1	10.2	822.2
30-01	-5.2	61.0	250.0	20.4	44.6	1058.9	7.8	808.9
31-01	-3.1	64.0	307.4	19.4	52.4	1169.4	9.3	862.0

Beukenstraat 21 — JANUARI

	Beukenstraat 21, slaapkamer					Beukenstraat 21, kelder				
	temp (C)	R.V. (%)	p(i) (Pa)	Td (C)	p(i)-p(e) (Pa)	temp (C)	R.V. (%)	p(i) (Pa)	Td (C)	p(i)-p(e) (Pa)
01-01						11.0	59.5	773.3	3.3	-340.4
02-01						11.8	64.9	889.5	5.3	84.5
03-01						11.8	64.8	888.1	5.3	514.8
04-01						11.1	60.1	786.3	3.5	265.2
05-01						10.8	56.3	722.0	2.3	85.2
06-01						10.0	65.8	799.9	3.7	140.2
07-01						10.0	53.9	656.4	1.0	313.1
08-01						10.5	53.0	666.3	1.2	207.3
09-01						10.0	46.8	568.9	-0.9	70.3
10-01						9.4	43.3	505.6	-2.3	25.3
11-01						8.9	52.6	593.7	-0.4	400.3
12-01						8.7	48.1	535.6	-1.6	349.4
13-01						8.1	46.4	496.1	-2.5	281.7
14-01						9.0	45.3	514.8	-2.1	340.0
15-01						9.0	46.5	528.5	-1.7	359.2
16-01						9.0	46.2	525.1	-1.8	326.4
17-01						9.0	48.8	554.6	-1.2	275.5
18-01						9.0	51.3	583.0	-0.6	234.5
19-01										
20-01										
21-01										
22-01										
23-01										
24-01										
25-01										
26-01										
27-01										
28-01										
29-01										
30-01										
31-01										

Beukenstraat 21 FEBRUARI

	buitenklimaat (*=ukkel)			Beukenstraat 21, woonkamer				
	temp (C)	R.V. (%)	p(i) (Pa)	temp (C)	R.V. (%)	p(i) (Pa)	Td (C)	p(i)-p(e) (Pa)
01-02	-3.2	63.0	300.3	22.2	59.7	1582.8	13.9	1282.5
02-02	-0.5	58.0	337.7	20.0	51.8	1199.8	9.7	862.1
03-02	0.1	93.0	565.7					
04-02	2.6	96.0	699.3					
05-02	3.4	89.0	686.3					
06-02	4.6	85.0	713.3					
07-02	4.9	86.8	745.7	21.1	69.9	1732.7	15.2	987.0
08-02	5.5	92.7	831.1	20.5	67.8	1619.7	14.2	788.6
09-02	7.9	93.0	980.8	20.3	72.3	1706.1	15.0	725.3
10-02	5.9	81.8	753.5	20.8	62.4	1518.5	13.2	765.0
11-02	4.0	85.9	691.9	18.9	67.9	1468.8	12.7	776.9
12-02	3.8	95.3	753.6	19.4	66.2	1477.3	12.8	723.7
13-02	3.8	90.3	714.0	18.9	72.2	1561.8	13.6	847.8
14-02	3.2	88.5	669.1	20.6	66.6	1600.9	14.0	931.8
15-02	1.6	95.0	644.2	21.1	69.4	1720.3	15.1	1076.1
16-02	0.6	89.0	561.5	19.6	70.0	1581.7	13.8	1020.2
17-02	-0.2	71.0	422.6	20.0	66.4	1538.0	13.4	1115.4
18-02	-0.5	83.0	483.3	20.7	61.1	1477.8	12.8	994.5
19-02	-1.3	88.0	483.1	18.5	65.1	1373.4	11.7	890.3
20-02	-2.3	83.0	423.2	18.6	61.2	1299.2	10.8	876.0
21-02	-0.7	69.0	395.9	20.2	56.3	1320.3	11.1	924.4
21-02	-0.7	69.0	395.9	20.2	56.3	1320.3	11.1	924.4
22-02	0.2	95.0	582.1					
23-02	1.5	83.0	558.8					
24-02	-0.5	69.0	401.7					
25-02	-1.4	64.0	348.8					
26-02	1.5	81.0	545.3					
27-02	5.7	98.0	888.1					
28-02	8.8	98.0	1098.7					

Beukenstraat 21 FEBRUARI

	Beukenstraat 21, slaapkamer					Beukenstraat 21, kelder				
	temp (C)	R.V. (%)	p(i) (Pa)	Td (C)	p(i)-p(e) (Pa)	temp (C)	R.V. (%)	p(i) (Pa)	Td (C)	p(i)-p(e) (Pa)
01-02										
02-02										
03-02										
04-02										
05-02										
06-02										
07-02	11.4	75.2	1003.7	7.0	258.0	9.0	51.1	580.8	-0.6	-164.9
08-02	11.4	77.3	1031.7	7.4	200.6	9.3	67.1	778.2	3.3	-52.9
09-02	12.8	80.0	1171.1	9.3	190.3	10.0	75.5	917.9	5.8	-62.9
10-02	12.7	73.1	1063.1	7.9	309.6	10.0	67.2	817.0	4.1	63.5
11-02	11.4	64.5	860.9	4.8	169.0	10.0	60.8	739.1	2.6	47.2
12-02	11.1	72.6	949.9	6.3	196.3	10.0	63.3	769.5	3.2	15.9
13-02	10.7	72.6	924.9	5.9	210.9	10.0	69.6	846.1	4.6	132.1
14-02	10.7	72.8	927.5	5.9	258.4	10.0	61.8	751.3	2.9	82.2
15-02	11.0	72.5	942.9	6.1	298.7	10.0	59.5	723.3	2.3	79.1
16-02	10.6	74.9	947.9	6.2	386.4	9.0	57.0	647.8	0.8	86.3
17-02	10.3	74.5	924.1	5.9	501.5	9.0	56.6	643.3	0.7	220.7
18-02	10.2	70.7	871.1	5.0	387.8	9.0	51.6	586.4	-0.5	103.1
19-02	9.8	72.2	866.5	4.9	383.4	8.5	51.0	560.3	-1.0	77.2
20-02	8.6	73.5	813.0	4.0	389.8	8.5	50.0	549.3	-1.3	126.1
21-02	8.3	75.5	818.2	4.1	422.3	8.5	50.0	549.3	-1.3	153.4
22-02	9.5	74.9	880.4	5.1	298.3	8.5	54.6	599.8	-0.2	17.7
23-02	10.5	74.5	936.5	6.0	377.7	8.5	49.3	541.6	-1.4	-17.2
24-02	9.1	62.8	718.6	2.2	316.9	8.5	49.3	541.6	-1.4	139.9
25-02	8.5	57.2	628.4	0.4	279.6	8.7	44.5	495.6	-2.5	146.8
26-02	8.5	73.5	807.5	3.9	262.2	8.5	48.9	541.6	-1.4	-3.7
27-02	10.3	80.2	994.8	6.9	106.7	9.4	61.7	720.4	2.3	-167.7
28-02	12.3	82.2	1164.4	9.2	65.7	10.0	73.5	893.5	5.4	-205.2

Beukenstraat 21 MARCH

buitenklimaat (*=ukkel)

	temp (C)	R.V. (%)	p(i) (Pa)
01-03	8.8	98.0	1098.7
02-03	8.0	96.0	1019.3
03-03	-4.3	61.0	267.7
04-03	-3.9	69.0	312.1
05-03	-1.5	62.0	335.4
06-03	-0.1	48.0	287.8
07-03	0.8	55.0	352.0
08-03	1.5	49.0	329.9
09-03	0.9	61.0	393.3
10-03	1.7	59.0	403.0
11-03	1.4	61.0	407.7
12-03	0.2	61.0	373.8
13-03	-0.5	62.0	361.0
14-03	0.3	59.0	364.2
15-03	0.3	89.0	549.4
16-03	0.8	76.0	486.4
17-03	3.7	88.0	693.2
18-03	3.6	86.0	672.6
19-03	2.4	90.0	646.3
20-03	1.8	82.0	564.1

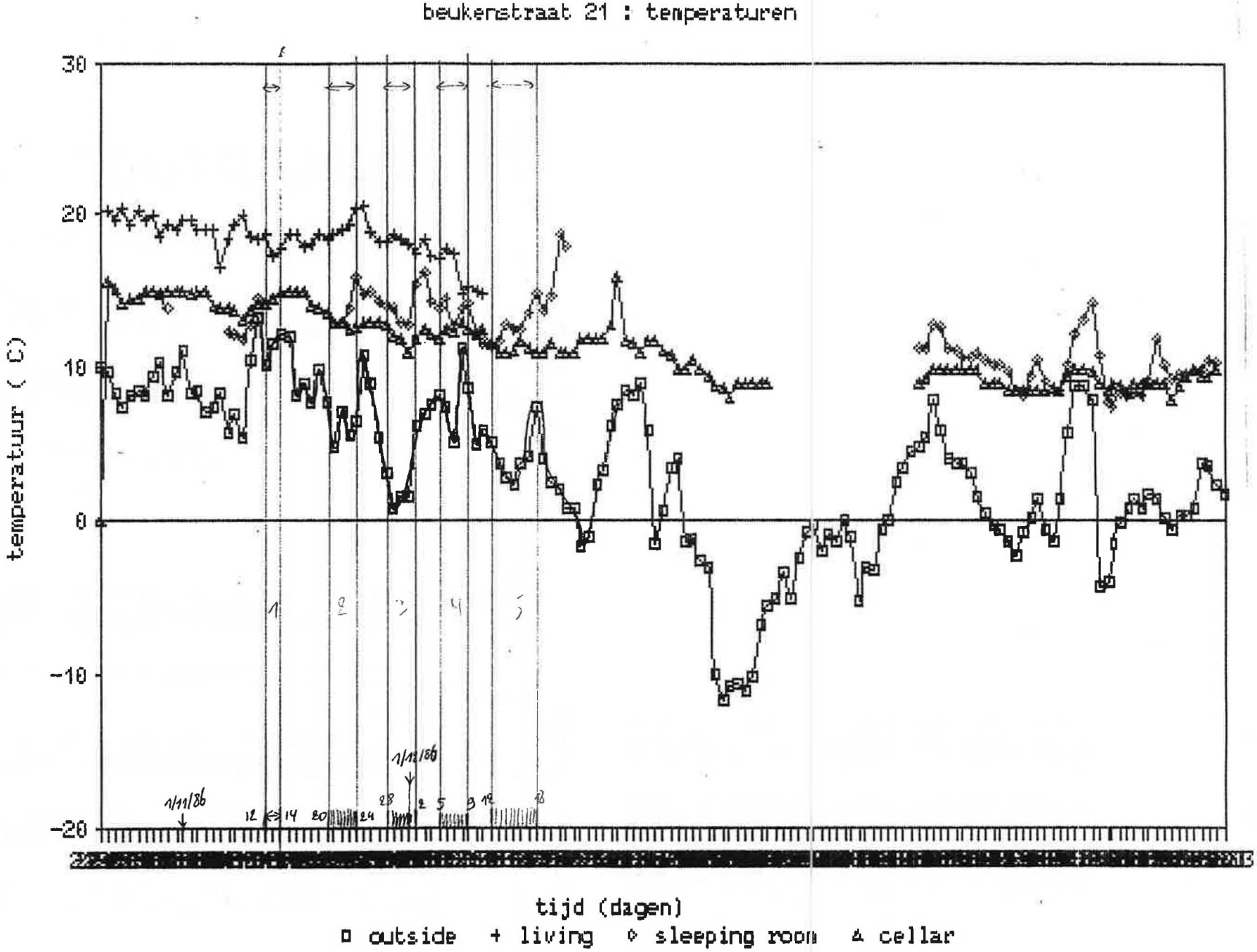
Beukenstraat 21, woonkamer

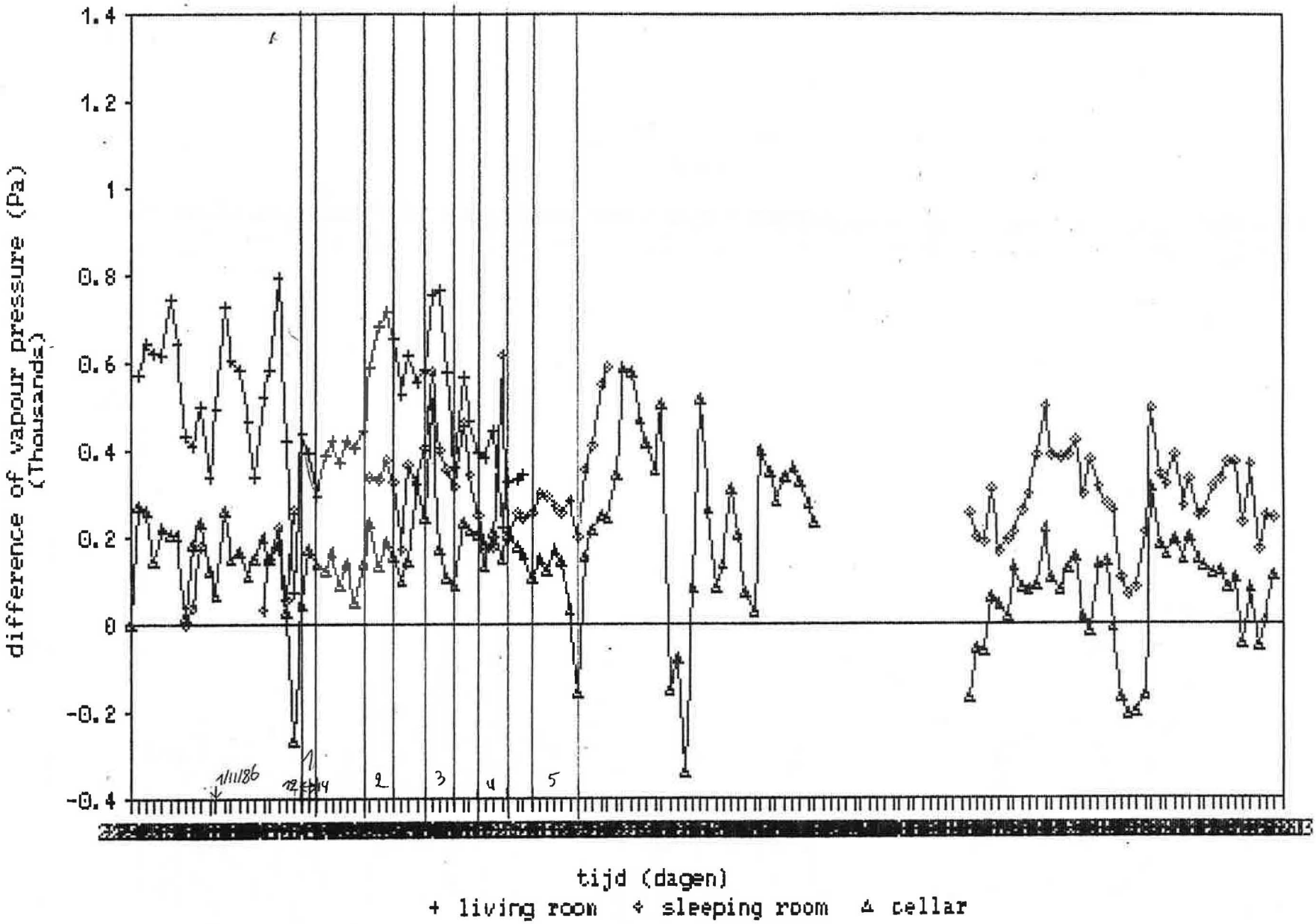
	temp (C)	R.V. (%)	p(i) (Pa)	Td (C)	p(i)-p(e) (Pa)
01-03	13.2	78.7	1182.6	9.4	83.9
02-03	14.2	76.7	1230.2	10.0	210.9
03-03	10.8	59.6	764.4	3.1	496.7
04-03	7.8	62.7	656.7	1.0	344.6
05-03	7.4	64.5	657.3	1.0	321.9
06-03	8.4	62.0	676.5	1.4	388.7
07-03	8.3	57.8	626.4	0.3	274.4
08-03	8.4	61.0	665.6	1.2	335.7
09-03	8.3	59.5	644.8	0.7	251.5
10-03	9.2	57.4	661.2	1.1	258.2
11-03	12.0	52.1	723.6	2.3	315.9
12-03	10.3	57.2	709.5	2.1	335.7
13-03	9.3	63.0	730.6	2.5	369.6
14-03	9.6	62.0	733.7	2.5	369.5
15-03	9.6	66.3	784.6	3.5	235.2
16-03	10.0	70.1	852.2	4.7	365.8
17-03	9.9	71.5	863.4	4.8	170.2
18-03	10.5	73.6	925.2	5.9	252.6
19-03	10.4	71.3	890.3	5.3	244.0

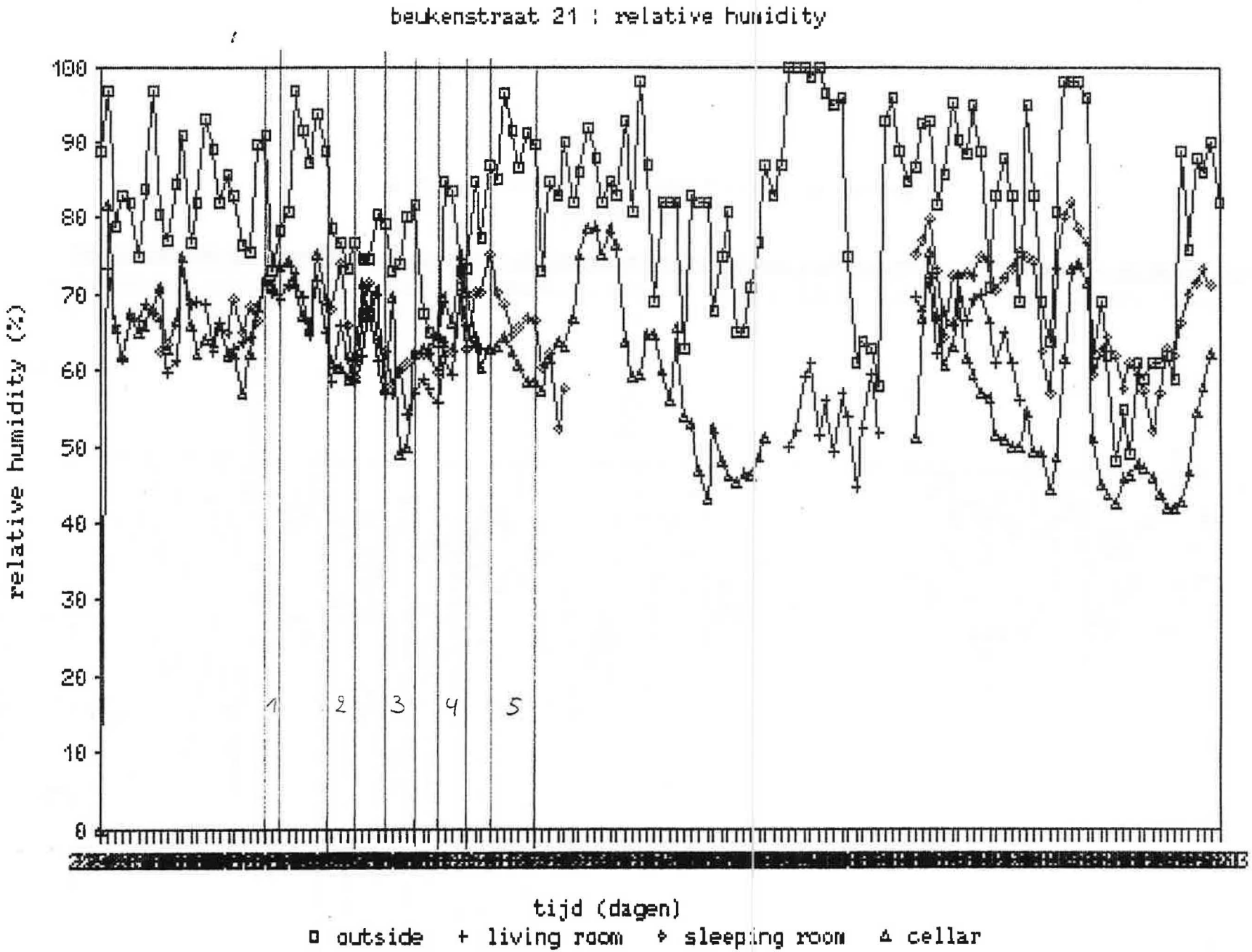
Beukenstraat 21, slaapkamer

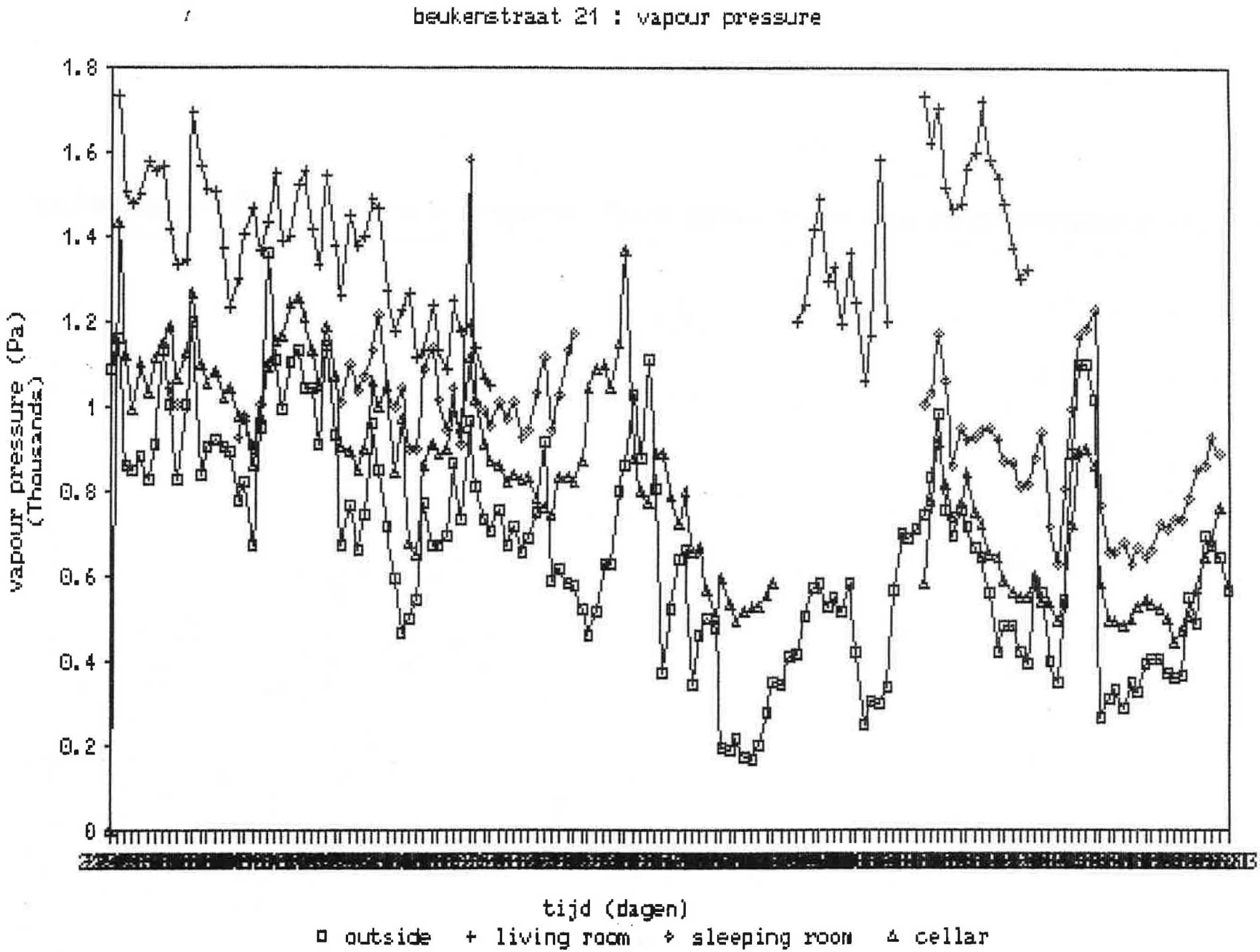
	temp (C)	R.V. (%)	p(i) (Pa)	Td (C)	p(i)-p(e) (Pa)
01-03	10.0	74.0	899.6	5.5	-199.1
02-03	9.8	71.6	858.8	4.8	-160.5
03-03	9.0	51.3	583.0	-0.6	315.3
04-03	8.5	45.2	496.6	-2.5	184.5
05-03	9.0	43.7	496.7	-2.5	161.3
06-03	8.9	42.7	482.0	-2.8	194.2
07-03	8.4	45.9	500.8	-2.4	148.8
08-03	9.0	46.4	527.3	-1.8	197.4
09-03	9.0	47.7	542.1	-1.4	148.8
10-03	9.0	47.1	535.3	-1.6	132.3
11-03	9.0	46.0	522.8	-1.9	115.1
12-03	9.0	43.8	497.8	-2.5	124.0
13-03	8.0	42.0	446.0	-3.8	85.0
14-03	8.8	41.9	469.8	-3.2	105.6
15-03	9.5	42.9	504.3	-2.3	-45.1
16-03	10.0	46.9	570.2	-0.8	83.8
17-03	9.5	54.7	643.0	0.7	-50.2
18-03	9.5	58.1	683.0	1.5	10.4
19-03	10.0	62.4	758.6	3.0	112.3

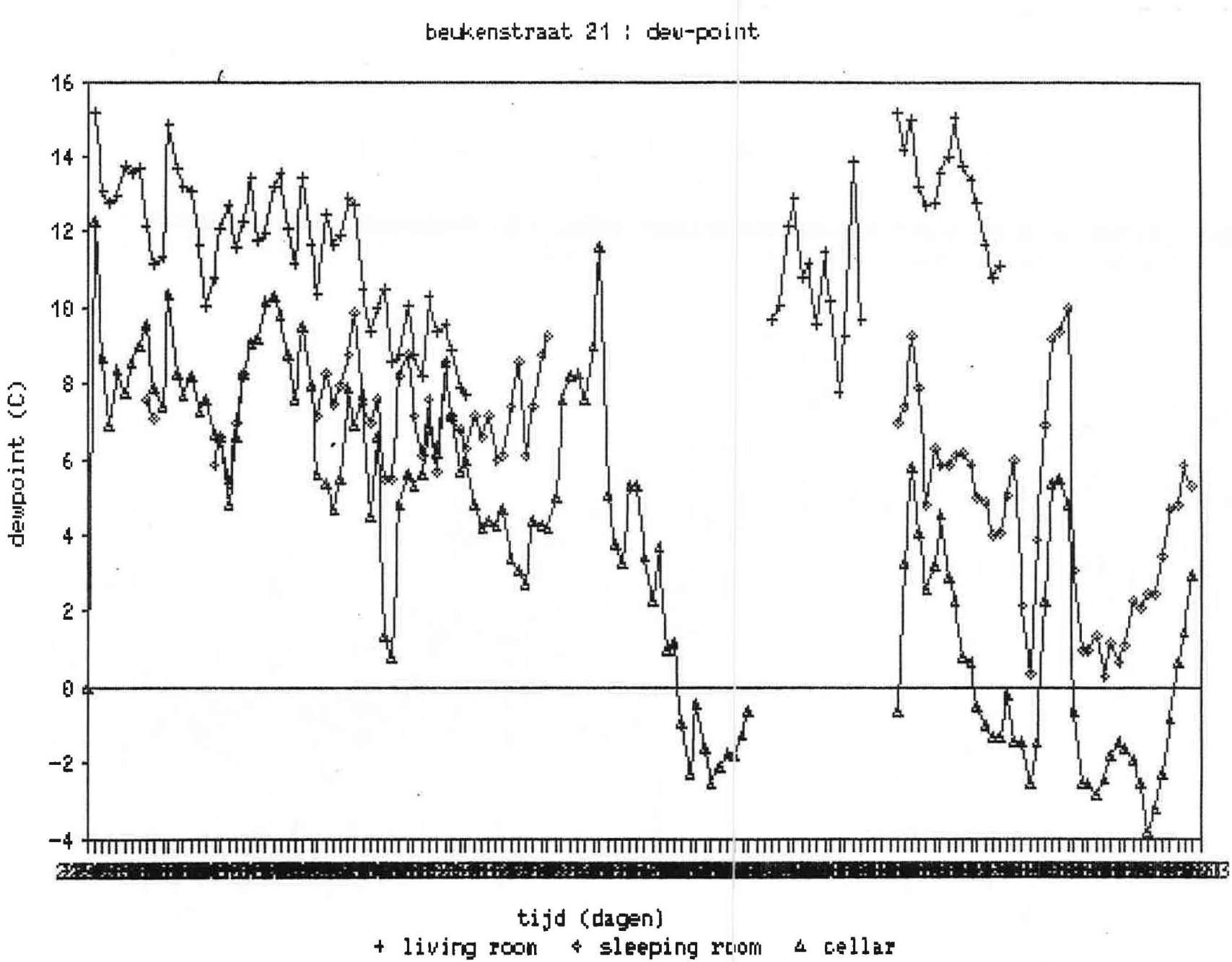
Beukenstraat 21, kelder


beukenstraat 21 : temperaturen
temperatuur (C)
30
20
10
0
-10
-20
1/11/86
1/12/86
tijd (dagen)
outside
living
sleeping room
cellar


difference of vapour pressure (Pa)
(Thousands)
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
-0.4
1/11/86
1
2
3
4
5
tijd (dagen)
+ living room ◇ sleeping room △ cellar


beukenstraat 21 : relative humidity
relative humidity (%)
100
90
80
70
60
50
40
30
20
10
0
1
2
3
4
5
tijd (dagen)
outside
living room
sleeping room
cellar


beukenstraat 21 : vapour pressure
vapour pressure (Pa)
(Thousands)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
tijd (dagen)
outside
living room
sleeping room
cellar


beukenstraat 21 : dew-point
dewpoint (C)
16
14
12
10
8
6
4
2
0
-2
-4
tijd (dagen)
+ living room ◆ sleeping room △ cellar

	temp lucht zolder	temp kamer 1 onder	temp kamer 2	temp kamer 3	temp kamer 4
DAY 2	11.646	14.575	14.440	14.504	13.485
DAY 5	5.092	11.925	11.938	11.969	10.763
DAY 6	6.967	11.915	12.017	12.048	10.246
DAY 7	5.517	12.894	11.988	12.406	9.867
DAY 10	3.229	12.958	10.983	10.935	9.006
DAY 11	2.833	11.973	10.546	10.473	8.533
DAY 12	1.606	11.771	9.935	9.650	7.610
DAY 15	6.769	13.093	12.409	12.355	10.780
DAY 16	4.808	11.371	10.990	11.325	9.704
DAY 17	9.654	12.646	12.140	12.317	10.883
DAY 20	4.575	10.588	10.356	10.685	8.798
DAY 21	3.598	11.765	10.638	10.675	8.519
DAY 22	3.571	11.346	10.452	10.252	8.265
DAY 23	4.256	11.380	10.593	10.429	8.262
DAY 24	4.594	12.242	10.383	10.315	8.460

temp badkamer	temp hall beneden	temp kelder	temp keuken	temp living	temp (buiten)
14.817	15.563	14.163	17.975	17.158	11.633
13.973	15.277	13.029	19.046	17.867	3.844
13.850	14.815	12.835	19.613	18.256	6.490
13.315	14.858	12.494	19.640	18.513	4.879
15.673	14.234	12.088	19.352	17.958	-0.006
15.335	14.363	11.906	19.731	18.117	-0.006
15.246	12.994	11.333	18.550	17.540	0.794
14.520	14.741	12.057	19.236	17.859	3.886
14.071	15.204	12.002	19.098	17.408	3.004
13.454	15.242	12.665	17.871	16.065	9.915
12.417	13.771	11.519	18.263	16.817	3.152
11.600	13.396	11.438	19.500	17.840	1.873
11.450	13.471	11.338	18.429	17.088	1.956
11.891	13.264	10.958	17.707	16.780	3.249
11.973	13.288	10.885	19.073	17.915	3.835

	10 flux wall	11 flux wall	12 flux ceiling	13 flux ceiling	MEAN flux wall	MEAN flux ceiling
DAY 2	0.513	-0.522	-1.076	1.066	0.517	1.071
DAY 5	0.945	-1.118	-1.882	1.870	1.031	1.876
DAY 6	0.925	-0.939	-1.472	1.385	0.932	1.429
DAY 7	1.122	-1.137	-2.112	2.168	1.129	2.140
DAY 10	1.312	-1.323	-2.651	2.770	1.317	2.711
DAY 11	1.174	-1.185	-2.411	2.413	1.179	2.412
DAY 12	1.690	-1.699	-2.907	2.836	1.694	2.871
DAY 15	0.867	-0.987	-1.605	1.814	0.927	1.709
DAY 16	0.864	-0.869	-1.848	1.842	0.866	1.845
DAY 17	0.916	-0.921	-1.179	1.174	0.919	1.177
DAY 20	1.158	-1.154	-1.921	1.918	1.156	1.919
DAY 21	1.368	-1.373	-2.222	2.217	1.371	2.219
DAY 22	1.430	-1.140	-1.916	2.028	1.285	1.972
DAY 23	1.200	-1.200	-2.000	2.000	1.200	2.000
DAY 24	1.534	-1.539	-2.319	2.302	1.537	2.311
MEAN	1.135	-1.140	-1.968	1.987	1.137	1.977

	14 temp wall inside	15 temp ceiling inside	16 temp wall outside	17 temp ceiling outside
DAY 2	13.371	13.233	12.075	11.525
DAY 5	10.621	10.104	4.298	6.442
DAY 6	10.025	10.071	6.975	7.679
DAY 7	10.581	10.390	5.558	6.819
DAY 10	10.352	9.838	3.402	4.610
DAY 11	9.752	9.246	2.633	4.375
DAY 12	8.970	8.505	1.113	3.497
DAY 15	11.350	11.155	5.350	7.868
DAY 16	9.610	9.246	4.008	5.548
DAY 17	10.706	11.175	9.842	9.629
DAY 20	8.240	8.373	3.402	5.215
DAY 21	9.138	9.194	2.850	5.081
DAY 22	9.146	8.927	2.619	4.860
DAY 23	8.900	8.900	3.600	5.300
DAY 24	9.360	9.475	3.983	5.740
MEAN	10.008	9.855	4.781	6.279

	20 temp lintel up	21 temp lintel middle	22 temp lintel down	23 temp wall floor	24 temp wall middle	25 temp wall down	26 temp corner down	27 temp corner middle
DAY 2	18.704	15.444	16.131	14.135	15.948	14.100	12.869	14.350
DAY 5	19.142	14.942	16.113	13.310	14.996	12.675	11.204	12.208
DAY 6	19.156	14.754	15.954	13.302	15.129	12.935	11.398	12.502
DAY 7	19.342	15.206	16.265	13.350	15.321	12.929	11.310	12.727
DAY 10	13.272	13.733	15.098	11.958	14.071	11.371	9.017	10.673
DAY 11	13.358	13.838	15.200	12.252	14.310	11.619	8.948	10.756
DAY 12	12.590	12.988	14.399	11.395	13.511	10.703	8.452	9.981
DAY 15	14.630	14.934	16.025	12.968	15.286	12.980	11.345	13.086
DAY 16	13.304	13.463	14.742	12.090	14.058	11.629	9.654	11.115
DAY 17	13.540	13.846	14.760	12.423	14.538	12.488	10.979	12.588
DAY 20	12.542	12.869	14.208	11.246	13.183	10.948	9.396	10.548
DAY 21	13.006	13.515	14.919	11.488	13.821	11.175	9.431	10.644
DAY 22	12.963	13.344	14.617	11.423	13.160	10.877	9.077	10.448
DAY 23	12.800	13.200	14.500	11.200	13.400	10.800	9.300	10.600
DAY 24	13.367	13.915	15.331	11.563	14.317	11.544	9.727	11.185
MEAN	14.781	13.999	15.217	12.273	14.337	11.918	10.141	11.561

HOURS	temp lucht zolder	temp kamer 1 onder	temp kamer 2	temp kamer 3	temp kamer 4	temp badkamer	temp hall beneden	temp keuken	temp keuken	temp living	temp (buiten)
DAY 1											
0	9.5	14.6	14.5	14.5	13.2	14.7	15.3	14.1	15.6	17.9	7.7
	9.2	14.7	14.5	14.5	13.1	15.0	15.3	14.1	15.8	17.6	7.7
1	9.1	14.7	14.5	14.3	13.2	14.9	14.2	14.1	15.8	17.4	7.6
	9.1	14.6	14.4	14.3	13.1	14.1	15.2	14.1	17.3	17.1	7.3
2	9.4	14.5	14.3	14.2	13.1	14.1	15.4	14.1	17.2	17.0	7.9
	9.3	14.6	14.3	14.1	13.1	14.1	15.1	14.2	17.6	16.8	8.7
3	9.2	14.5	14.1	14.0	13.1	13.7	15.3	14.1	17.1	16.7	8.6
	9.1	14.4	14.0	13.9	13.1	14.1	15.7	14.2	17.6	16.6	8.3
4	9.1	14.4	14.0	13.8	13.1	14.1	15.7	14.1	17.2	16.5	8.0
	8.9	14.5	13.9	13.7	13.1	14.0	15.7	14.2	17.4	16.4	7.7
5	8.8	14.5	13.8	13.7	13.1	14.1	15.7	14.2	17.3	16.3	7.7
	8.8	14.6	13.8	13.6	13.0	14.9	15.7	14.2	17.1	16.2	7.7
6	8.8	14.5	13.7	13.5	13.1	14.8	15.4	14.2	16.9	16.1	7.6
	8.8	14.4	13.6	13.4	13.0	14.7	15.6	14.3	17.3	16.0	8.0
7	8.8	14.4	13.6	13.3	13.0	14.7	15.6	14.3	17.7	16.0	8.7
	8.7	14.4	13.5	13.3	13.0	14.7	15.6	14.4	16.9	15.9	8.4
8	8.7	14.4	13.5	13.2	13.0	14.9	15.6	14.4	16.8	15.9	8.5
	9.1	14.6	13.1	13.0	13.2	14.4	14.7	14.7	16.5	14.5	9.2
9	10.1	14.7	13.1	12.9	12.9	15.0	14.3	14.5	16.5	14.0	10.2
	11.2	13.9	12.1	12.9	12.9	16.0	14.2	14.6	15.7	13.9	11.4
10	11.7	13.8	13.2	12.9	12.9	14.7	14.3	14.4	15.7	14.2	11.7
	12.4	13.9	13.4	12.9	13.0	14.6	15.2	14.3	17.5	15.1	13.0
11	13.5	14.3	13.3	13.1	13.1	14.7	15.5	14.2	17.9	15.5	14.7
	14.7	14.5	14.0	13.5	13.1	15.2	15.5	14.1	17.4	15.5	17.1
12	14.9	14.5	14.1	13.8	13.3	14.7	15.5	14.1	17.8	15.7	18.1
	15.2	14.6	14.2	14.0	13.4	14.6	15.4	14.1	21.0	16.3	18.6
13	15.5	14.7	14.2	14.2	13.5	14.7	15.4	14.1	18.1	15.8	17.3
	15.1	14.8	14.4	14.5	13.7	14.7	15.6	14.1	17.5	15.5	15.6
14	16.0	15.0	14.6	14.9	14.1	14.7	15.5	14.1	16.6	15.4	15.8
	15.8	15.0	14.7	15.2	14.4	14.6	15.5	14.1	16.3	15.4	17.2
15	15.4	14.9	14.6	15.3	14.7	14.6	15.5	14.0	16.9	15.5	15.6
	15.1	14.8	14.6	15.6	14.7	14.6	15.5	14.0	17.3	15.5	15.0
16	14.7	14.7	14.4	15.6	14.7	14.3	15.6	14.0	16.4	15.5	14.6
	14.2	14.6	14.2	15.4	14.5	14.1	15.6	14.0	16.2	15.5	13.9
17	13.5	14.6	14.3	14.7	14.1	14.2	15.5	14.0	16.6	15.5	13.4
	13.0	14.6	14.5	14.7	14.0	15.0	15.4	14.2	17.2	16.2	13.0
18	12.4	14.6	15.9	14.1	13.9	14.7	15.4	14.0	13.9	21.3	12.1
	12.0	14.6	16.1	14.5	17.7	14.7	15.6	14.1	20.5	22.6	11.9
19	11.5	14.6	15.0	15.3	13.7	14.2	15.3	14.0	20.6	22.0	11.6
	11.6	14.6	15.1	16.1	13.7	14.3	15.7	14.0	20.4	21.2	11.3
20	11.6	14.6	15.3	16.1	13.7	14.9	15.6	14.0	20.2	21.1	11.5
	11.5	14.6	15.7	16.0	13.7	14.8	15.5	14.0	19.8	21.1	11.4
21	11.5	14.6	15.6	15.9	13.7	14.8	16.0	14.0	19.5	20.7	11.4
	11.8	14.6	15.6	15.8	13.7	14.8	15.7	14.1	19.8	20.5	11.9
22	12.2	14.6	15.7	15.8	13.7	14.8	16.0	14.1	19.9	20.7	12.4
	12.6	14.6	15.7	15.9	13.7	14.8	15.8	14.1	19.5	20.8	13.1
23	13.0	14.9	15.5	15.7	13.8	15.2	16.3	14.3	18.9	19.9	13.7
	13.1	14.8	15.2	15.4	13.8	14.8	16.0	14.0	18.5	12.8	13.6

HOURS	0 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 2											
0	9.5	14.6	14.6	14.5	13.2	14.7	16.0	14.0	18.6	17.9	7.7
	9.2	14.7	14.5	14.5	13.2	15.0	16.0	14.1	19.0	17.6	7.7
1	9.1	14.7	14.5	14.3	13.2	14.9	16.0	14.1	18.4	17.4	7.6
	9.1	14.6	14.4	14.3	13.1	14.9	15.9	14.2	17.8	17.1	8.3
2	9.4	14.6	14.3	14.2	13.1	14.8	15.9	14.3	17.2	17.0	8.9
	9.3	14.6	14.1	14.1	13.1	14.8	15.8	14.2	18.4	16.9	8.7
3	9.2	14.6	14.1	14.0	13.1	14.7	15.8	14.2	18.1	16.7	8.6
	9.1	14.6	14.0	13.9	13.1	14.9	15.7	14.2	17.4	16.6	8.3
4	9.1	14.6	14.0	13.8	13.1	14.8	15.7	14.2	17.2	16.5	8.0
	8.9	14.5	13.9	13.7	13.1	14.8	15.7	14.2	17.9	16.4	7.7
5	8.8	14.5	13.8	13.7	13.1	14.8	15.7	14.2	17.9	16.3	7.7
	8.6	14.6	13.8	13.6	13.0	14.9	15.7	14.2	17.1	16.2	7.3
6	8.5	14.5	13.7	13.5	13.1	14.8	15.6	14.2	16.9	16.1	7.6
	8.5	14.4	13.6	13.4	13.0	14.7	15.6	14.3	17.3	16.0	8.0
7	8.6	14.4	13.6	13.3	13.0	14.7	15.6	14.3	17.7	16.0	8.3
	8.7	14.4	13.5	13.3	13.0	14.7	15.6	14.4	16.9	15.9	8.4
8	8.7	14.4	13.5	13.2	13.0	14.9	15.6	14.4	16.8	15.9	8.5
	9.2	14.6	13.1	13.0	13.0	14.9	14.7	14.5	16.5	14.5	9.0
9	10.1	14.7	13.1	12.9	12.9	15.0	14.3	14.5	16.5	14.0	10.2
	11.2	13.9	13.1	12.9	12.9	16.0	14.2	14.6	15.7	13.9	11.4
10	11.7	13.8	13.2	12.9	12.9	14.7	14.3	14.4	15.7	14.2	11.7
	12.4	13.9	13.4	12.9	13.0	14.6	15.2	14.3	17.5	15.1	13.0
11	13.5	14.3	13.8	13.1	13.1	14.7	15.5	14.2	17.9	15.5	14.7
	14.3	14.5	14.0	13.5	13.1	15.2	15.5	14.1	17.4	15.5	17.1
12	14.9	14.6	14.2	13.8	13.3	14.7	15.5	14.1	17.8	15.7	18.1
	15.3	14.6	14.2	14.0	13.4	14.6	15.4	14.1	21.0	16.3	18.6
13	15.5	14.7	14.2	14.2	13.5	14.7	15.4	14.1	18.1	15.8	17.3
	15.8	14.8	14.4	14.5	13.7	14.7	15.6	14.1	17.5	15.6	15.6
14	16.0	15.0	14.6	14.9	14.1	14.7	15.5	14.1	16.6	15.4	15.8
	15.8	15.0	14.7	15.2	14.4	14.6	15.5	14.1	16.3	15.4	17.2
15	15.4	14.9	14.6	15.5	14.7	14.6	15.5	14.0	16.9	15.5	15.6
	15.1	14.8	14.6	15.6	14.7	14.6	15.5	14.0	17.3	15.5	15.0
16	14.7	14.7	14.4	15.6	14.7	14.8	15.6	14.0	16.4	15.5	14.6
	14.2	14.6	14.2	15.4	14.5	14.8	15.6	14.0	16.2	15.5	13.9
17	13.5	14.6	14.3	14.7	14.1	14.8	15.5	14.0	16.6	15.5	13.4
	13.0	14.6	14.5	14.7	14.0	15.0	15.4	14.2	17.2	16.2	13.0
18	12.4	14.6	15.9	16.1	13.9	14.7	15.4	14.0	18.9	21.3	12.1
	12.0	14.6	16.1	16.5	13.7	14.7	15.6	14.1	20.5	22.6	11.9
19	11.8	14.6	16.0	16.3	13.7	14.8	15.8	14.0	20.6	22.0	11.6
	11.6	14.6	15.8	16.1	13.7	14.8	15.7	14.0	20.4	21.2	11.3
20	11.6	14.6	15.8	16.1	13.7	14.9	15.6	14.0	20.2	21.1	11.5
	11.5	14.6	15.7	16.0	13.7	14.8	15.5	14.0	19.8	21.1	11.4
21	11.5	14.6	15.6	15.9	13.7	14.8	16.0	14.0	19.5	20.7	11.4
	11.8	14.6	15.6	15.8	13.7	14.8	15.7	14.1	19.8	20.5	11.9
22	12.2	14.6	15.7	15.8	13.7	14.8	16.0	14.1	19.9	20.7	12.4
	12.6	14.6	15.7	15.9	13.7	14.8	15.8	14.1	19.5	20.8	13.1
23	13.0	14.9	15.5	15.7	13.8	15.2	16.3	14.3	18.9	19.9	13.7
	13.1	14.8	15.2	15.4	13.8	14.8	16.0	14.0	18.5	18.8	13.6

HOURS	0 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 3											
0	13.2	14.9	15.1	15.2	13.3	14.9	15.0	14.1	18.8	18.1	13.7
	13.2	15.0	15.0	15.1	13.3	14.9	16.0	14.0	17.9	17.7	13.5
1	13.2	15.0	15.0	15.1	13.9	14.9	16.0	14.0	17.5	17.4	13.2
	13.2	15.1	15.0	15.0	14.0	14.9	16.0	14.1	17.7	17.2	13.0
2	13.0	15.1	14.9	15.0	14.0	14.9	15.9	14.0	18.3	17.1	12.5
	12.9	15.2	14.9	15.0	14.0	15.0	15.9	14.0	17.6	16.9	12.3
3	12.4	15.2	14.9	14.9	14.0	15.0	15.9	13.9	17.2	16.8	11.2
	11.2	15.3	14.9	14.8	14.0	15.0	15.9	13.8	17.4	16.7	10.1
4	11.9	15.3	14.8	14.3	14.0	15.0	15.9	13.9	18.1	16.7	9.6
	11.8	15.3	14.8	14.2	14.0	15.0	15.9	13.9	17.4	16.6	9.5
5	11.6	15.3	14.7	14.7	14.0	15.0	15.9	13.9	17.0	16.5	9.7
	11.4	15.3	14.7	14.7	14.0	15.0	15.8	13.8	17.1	16.4	9.8
6	11.2	15.3	14.7	14.6	14.0	15.0	15.8	13.8	17.9	16.4	9.9
	11.3	15.3	14.7	14.5	14.0	15.0	15.8	13.9	17.4	16.3	9.9
7	11.2	15.3	14.6	14.5	14.0	15.0	15.7	13.8	16.8	16.2	9.9
	11.1	15.3	14.6	14.4	14.0	15.0	15.7	13.8	16.8	16.2	9.6
8	10.9	15.3	14.5	14.3	14.0	15.4	15.7	13.8	17.6	16.3	9.0
	10.7	15.3	14.2	14.1	14.0	15.5	15.7	14.1	17.4	16.0	8.8
9	11.3	15.7	14.4	14.0	14.0	15.4	15.3	14.3	16.3	15.5	9.3
	12.1	15.4	14.7	13.9	13.8	17.3	15.3	14.2	16.5	15.3	11.2
10	12.8	15.3	14.8	13.8	13.7	16	15.4	14	17.3	15.7	12.2
	13.7	15.0	14.7	13.7	13.7	15.8	15.6	14.0	17.6	16.2	13.2
11	14.4	15.0	14.6	13.8	13.8	15.3	15.7	14.0	17.0	16.2	14.1
	15.1	15.0	14.5	13.8	13.7	15.2	16.0	14.1	16.8	16.4	16.5
12	15.3	14.8	14.4	13.9	13.8	15.2	16.0	14.2	17.3	16.3	17.7
	15.5	14.8	14.4	14.0	13.9	15.1	15.8	14.1	18.4	16.3	17.6
13	15.5	14.7	14.4	14.1	14.0	15.1	15.7	14.1	18.2	16.4	16.1
	15.5	14.7	14.5	14.3	14.1	15.1	15.8	14.1	16.8	16.0	13.7
14	15.6	14.8	14.6	14.8	14.4	15.1	15.8	14.1	17.3	15.9	14.0
	15.9	14.9	14.7	15.0	14.7	15.0	15.7	14.0	17.2	15.9	15.3
15	15.8	14.9	14.7	15.5	15.1	15.1	15.7	14.0	16.6	16.1	14.7
	15.7	15.0	14.8	16.1	15.6	15.2	15.9	14.1	16.6	16.2	14.2
16	15.0	15.0	14.8	16.4	15.7	15.1	15.9	14.1	17.5	16.4	13.9
	14.6	15.1	15.0	16.3	15.4	15.2	15.9	14.1	17.4	16.2	13.6
17	13.9	15.1	15.1	15.6	14.9	15.3	15.8	14.1	16.9	16.3	13.0
	13.2	15.0	16.3	16.7	14.6	15.1	15.7	14.1			12.4
18	12.9	15.1	16.6	16.9	14.6	15.3					
19											
20											
21											
22											
23											

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HOURS	0 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 4											
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15	7.0	13.1	13.6	13.7	11.5	13.6	15.6	13.1	21.3	20.2	6.1
	7.9	13.8	13.6	14.4	11.9	13.8	17.9	13.4	20.6	19.1	5.7
16	8.0	13.4	13.4	14.2	12.8	13.9	17.0	13.6	19.5	18.0	5.3
	7.1	13.1	13.1	13.2	12.6	14.0	15.5	13.1	18.5	17.5	4.8
17	7.0	13.2	13.2	13.6	13.1	13.9	17.0	13.2	18.5	17.5	5.1
	6.7	13.2	13.2	13.5	13.1	13.9	16.7	13.2	18.7	16.9	4.6
18	6.1	13.2	13.1	13.3	13.0	14.0	16.3	13.2	18.4	16.6	4.3
	5.4	12.9	13.6	13.5	11.7	13.9	15.5	13.0	22.8	20.4	3.4
19	5.0	12.7	13.8	13.9	11.4	13.7	15.7	12.9	23.1	22.3	2.9
	4.7	12.8	13.6	13.4	11.5	13.7	15.2	13.0	21.7	21.0	2.9
20	4.6	12.8	13.5	13.3	11.5	13.7	15.1	13.0	21.1	20.6	2.4
	4.8	12.8	13.6	13.5	11.3	13.7	15.2	13.0	21.1	21.2	1.4
21	5.0	12.8	13.5	13.2	11.3	13.7	15.2	13.0	20.8	20.8	0.6
	4.4	12.7	13.3	13.1	11.3	13.8	15.5	13.0	20.9	20.5	0.5
22	4.3	12.7	13.4	13.1	11.2	13.7	15.2	13.0	21.1	20.7	1.8
	4.6	12.7	13.3	13.0	11.1	13.8	15.1	13.0	20.6	20.7	0.9
23	4.7	13.0	13.3	13.0	11.3	14.8	16.8	13.2	20.4	20.0	0.5
	4.4	13.0	13.0	12.5	11.2	14.1	16.2	13.0	19.7	18.5	1.3

HOURS	0 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 5											
0	4.4	13.0	12.8	12.3	11.2	13.9	15.9	13.0	18.5	17.5	1.1
	4.4	12.9	12.7	12.1	11.2	13.9	15.6	13.0	17.9	17.0	1.1
1	4.3	12.9	12.5	11.9	11.1	13.9	15.5	13.0	18.1	16.6	0.9
	4.2	12.8	12.4	11.8	11.1	13.8	15.5	13.0	18.4	16.4	1.1
2	4.2	12.8	12.3	11.7	11.1	13.9	15.4	13.1	17.5	16.2	1.4
	4.3	12.8	12.1	11.6	11.1	14.0	15.3	13.0	17.1	16.0	1.6
3	4.2	12.7	12.0	11.4	11.1	13.8	15.2	13.0	17.3	15.7	2.1
	4.2	12.7	11.9	11.2	11.0	13.8	15.1	13.0	17.7	15.6	2.5
4	4.4	12.7	11.8	11.1	11.0	13.8	15.1	13.0	16.8	15.5	2.7
	4.5	12.7	11.7	11.1	11.0	13.8	15.0	13.0	16.5	15.4	3.0
5	4.5	12.6	11.7	11.0	11.0	13.8	14.9	13.0	16.7	15.2	3.1
	4.5	12.6	11.6	10.9	11.0	13.8	14.9	13.0	17.1	15.1	3.6
6	4.5	12.5	11.5	10.8	11.0	13.7	14.8	13.0	16.3	15.0	3.7
	4.5	12.5	11.5	10.7	11.0	13.8	14.8	13.0	16.1	14.9	3.8
7	4.6	12.4	11.3	10.7	10.9	13.7	14.7	13.0	16.1	14.7	4.0
	4.7	12.5	11.3	10.6	10.9	13.7	14.6	13.0	16.8	14.7	4.2
8	5.0	12.5	11.2	10.6	10.9	13.6	14.5	13.0	16.1	14.6	4.3
	5.3	12.6	10.5	9.6	10.6	12.3	13.0	13.1	14.8	13.5	4.6
9	5.5	12.4	10.0	9.2	10.2	11.9	12.7	13.0	14.7	13.1	5.0
	5.4	11.6	10.0	9.1	9.8	12.9	13.5	12.8	15.7	14.0	4.5
10	5.1	10.6	10.6	10.4	9.4	13.9	13.6	12.7	19.0	18.7	4.2
	5.0	10.2	10.7	10.7	9.2	13.1	13.6	12.7	20.4	20.3	4.1
11	5.1	10.0	10.5	10.6	9.2	13.1	14.1	12.7	20.9	20.6	4.3
	5.7	11.3	11.4	11.4	10.0	13.3	17.4	13.0	19.5	18.5	4.5
12	5.7	11.4	11.2	10.9	10.1	13.6	16.3	13.0	18.0	17.1	4.6
	5.5	11.2	11.8	12.1	9.9	13.1	14.4	12.7	21.6	20.1	4.9
13	5.8	11.4	12.3	12.8	9.9	13.2	17.7	13.0	22.1	21.1	5.1
	6.1	11.4	12.3	12.9	10.0	14.2	17.0	13.0	21.6	21.0	5.5
14	6.4	11.9	12.6	13.5	11.7	16.0	17.9	13.2	21.5	20.3	5.2
	5.8	11.4	12.4	13.1	11.8	19.1	15.2	13.2	21.5	20.5	4.9
15	6.9	11.9	12.5	13.9	12.9	16.9	13.4	13.4	20.6	19.8	6.0
	7.0	11.8	12.1	13.4	12.6	15.6	17.4	13.3	19.4	18.1	5.9
16	6.5	11.7	11.8	13.0	12.5	14.9	16.7	13.2	18.7	17.1	5.3
	6.0	11.7	11.6	12.7	12.3	14.6	16.2	13.2	17.6	16.5	4.8
17	5.8	11.7	11.6	12.3	11.8	14.4	15.5	13.1	17.3	16.3	4.3
	5.0	11.6	12.4	12.9	10.8	14.1	15.0	13.1	20.6	19.1	3.8
18	4.6	11.5	12.6	13.3	10.5	14.0	14.9	13.0	23.9	20.7	3.5
	4.7	11.5	12.8	13.4	10.5	13.9	15.2	13.0	22.8	21.0	4.0
19	4.8	11.6	12.7	13.2	10.5	13.3	15.0	13.0	22.1	20.9	4.0
	4.9	11.6	12.6	13.2	10.5	13.9	15.1	13.1	21.2	20.6	3.9
20	5.0	11.7	12.7	13.2	10.5	14.1	16.2	13.1	21.4	20.2	4.0
	5.0	11.7	12.8	13.3	10.3	13.8	15.4	13.1	21.4	20.6	4.1
21	5.0	11.6	12.8	13.3	10.3	13.7	14.7	13.1	21.2	20.6	4.2
	5.1	11.5	12.7	13.2	10.2	13.7	14.7	13.1	21.0	20.4	4.2
22	5.1	11.5	12.8	13.2	10.3	13.7	14.8	13.1	20.4	20.3	4.2
	5.1	11.5	12.7	13.2	10.2	13.7	14.7	13.1	21.0	20.4	4.2
23	5.0	11.5	12.7	13.2	10.2	13.6	14.6	13.2	21.1	20.5	4.2
	5.1	11.8	12.5	12.8	10.3	13.9	15.6	13.0	20.2	19.6	4.3

HOURS	1 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 6											
0	5.0	11.7	12.1	12.2	10.3	13.6	14.9	12.9	18.8	18.5	4.2
	4.7	11.8	12.0	11.9	10.4	13.6	14.8	13.0	18.4	17.7	3.5
1	4.3	11.8	11.9	11.7	10.4	13.6	14.8	13.0	18.8	17.2	3.0
	4.0	11.9	11.9	11.5	10.4	13.6	14.7	13.0	18.2	16.8	2.7
2	4.0	11.9	11.8	11.3	10.4	13.6	14.7	13.0	17.4	16.5	2.9
	4.6	11.9	11.7	11.2	10.4	13.6	14.7	13.0	17.3	16.2	3.4
3	4.7	11.9	11.6	11.1	10.3	13.5	14.7	13.0	17.9	16.0	3.5
	4.9	11.9	11.6	11.1	10.3	13.5	14.7	13.0	17.4	15.9	3.6
4	5.1	11.9	11.4	11.0	10.3	13.5	14.6	13.0	16.7	15.7	3.8
	5.2	12.0	11.3	11.0	10.3	13.5	14.6	13.0	16.6	15.5	4.2
5	5.4	12.0	11.2	10.9	10.3	13.5	14.6	13.0	17.2	15.4	4.6
	5.6	12.0	11.2	10.8	10.3	13.5	14.5	12.9	16.9	15.3	4.8
6	5.6	11.9	11.1	10.7	10.3	13.4	14.5	12.9	16.3	15.1	4.6
	5.7	11.9	11.1	10.7	10.3	13.4	14.5	12.9	16.1	15.0	4.7
7	5.9	11.8	11.0	10.6	10.3	13.3	14.5	12.9	16.7	14.9	5.1
	6.2	11.9	11.0	10.6	10.3	13.3	14.4	12.9	16.7	14.8	5.6
8	6.6	11.9	11.0	10.6	10.4	13.3	14.3	12.9	15.9	14.7	6.0
	7.0	12.1	10.9	10.2	10.1	12.4	12.8	12.9	16.1	13.7	6.4
9	7.2	12.2	10.7	9.9	9.9	11.4	11.6	13.0	16.0	13.2	6.9
	7.6	11.4	10.6	9.9	9.8	12.6	12.3	13.0	15.7	13.5	7.2
10	7.6	11.1	10.6	10.1	9.6	13.0	13.2	12.8	15.6	14.5	7.6
	7.4	11.3	11.7	11.9	9.6	13.3	13.4	12.6	19.3	18.4	8.1
11	8.1	11.5	12.3	12.7	9.7	12.8	13.6	12.6	20.9	20.5	10.5
	8.8	11.7	12.4	13.0	9.7	13.6	15.2	12.6	23.3	21.3	9.5
12	8.6	11.6	12.4	13.1	9.8	16.4	15.8	12.6	23.2	21.6	9.0
	8.7	11.6	12.5	13.2	9.9	16.9	16.5	12.7	23.2	21.5	9.9
13	9.4	11.7	12.4	13.2	10.0	16.2	15.7	12.7	26.4	21.6	10.5
	9.6	11.7	12.1	12.8	10.0	16.4	15.0	12.6	27.6	21.2	10.3
14	9.8	12.0	12.2	12.9	10.2	15.4	15.6	12.7	23.9	20.7	10.2
	9.2	11.8	12.3	13.0	10.1	14.6	15.0	12.7	22.5	20.7	9.1
15	8.9	11.8	12.5	13.1	10.2	14.2	15.4	12.7	21.7	20.9	9.1
	9.0	11.9	12.2	12.6	10.3	14.1	14.7	12.7	20.6	20.0	9.3
16	9.0	12.0	12.3	12.6	10.5	14.2	15.3	12.8	20.5	19.4	8.8
	8.4	11.9	12.8	13.3	10.2	14.0	15.1	12.7	22.2	21.2	8.0
17	7.9	11.9	12.7	13.1	10.4	14.0	14.9	12.7	21.5	20.6	7.1
	7.8	12.1	12.6	13.0	10.4	13.8	15.3	12.8	20.4	20.0	6.8
18	7.7	12.1	12.9	13.3	10.4	13.7	15.8	12.9	21.1	20.9	7.0
	7.6	12.0	12.8	13.1	10.4	13.7	15.0	12.8	22.2	20.7	7.1
19	7.7	12.1	12.7	13.0	10.5	13.8	15.3	12.9	21.3	20.4	7.0
	7.6	12.1	12.7	13.0	10.4	13.6	14.9	12.8	20.9	20.5	7.0
20	7.5	12.0	12.8	13.1	10.4	13.6	14.7	12.7	20.6	20.7	7.2
	7.8	12.5	13.0	13.2	10.6	13.8	17.5	12.9	20.3	19.8	6.7
21	7.3	12.5	12.8	12.8	10.6	13.8	17.1	12.9	19.8	18.5	5.9
	7.0	12.1	12.6	12.5	10.5	13.7	15.2	12.9	19.7	18.8	6.0
22	6.7	12.1	13.1	13.5	10.4	13.5	15.0	12.8	21.3	21.6	5.8
	6.7	12.2	13.0	13.3	10.4	13.6	15.2	12.8	20.7	21.1	5.9
23	6.7	12.5	12.7	12.7	10.5	13.8	15.5	12.8	20.1	19.3	5.9
	6.6	12.3	12.6	12.3	10.6	13.6	15.0	12.7	19.5	18.3	5.5

HOURS	0 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 7											
0	6.3	12.4	12.5	12.1	10.6	13.6	15.0	12.8	18.7	17.6	5.0
	6.0	12.5	12.5	12.0	10.6	13.6	15.0	12.9	18.0	17.2	4.5
1	5.8	12.5	12.4	11.9	10.7	13.6	15.0	12.9	18.0	16.9	4.3
	5.6	12.5	12.2	11.8	10.6	13.6	14.9	12.9	18.5	16.6	4.3
2	5.7	12.6	12.2	11.8	10.7	13.6	14.8	12.8	18.1	16.5	4.7
	5.6	12.5	12.1	11.6	10.6	13.6	14.8	12.8	17.3	16.3	4.4
3	5.6	12.6	12.0	11.6	10.6	13.6	14.7	12.8	17.1	16.1	4.5
	5.5	12.5	12.0	11.5	10.6	13.5	14.7	12.7	17.6	16.0	4.6
4	5.4	12.6	12.0	11.4	10.6	13.5	14.6	12.7	17.8	15.9	4.4
	5.2	12.5	11.8	11.2	10.5	13.5	14.6	12.7	16.9	15.7	4.2
5	5.0	12.6	11.7	11.2	10.5	13.6	14.6	12.7	16.6	15.6	4.1
	5.2	12.5	11.7	11.0	10.5	13.5	14.5	12.6	16.7	15.4	4.3
6	5.2	12.4	11.7	11.0	10.5	13.5	14.4	12.6	17.3	15.3	4.4
	5.2	12.4	11.6	10.9	10.5	13.4	14.4	12.6	16.8	15.2	4.2
7	4.9	12.3	11.5	10.8	10.4	13.4	14.4	12.6	16.2	15.1	3.8
	4.8	12.4	11.5	10.8	10.5	13.4	14.3	12.6	16.0	15.0	4.0
8	5.0	12.3	11.4	10.7	10.4	13.3	14.2	12.6	16.6	14.9	4.2
	5.0	12.3	11.3	10.6	10.4	13.3	14.2	12.5	16.8	14.9	4.2
9	5.1	12.4	11.2	10.2	10.3	13.3	12.7	12.6	15.7	13.9	4.4
	5.4	11.5	10.8	9.7	9.9	13.8	12.5	12.7	16.4	13.9	4.6
10	5.1	10.7	11.3	10.5	9.2	14.2	15.8	12.3	19.8	18.7	4.6
	4.9	10.4	11.6	10.9	8.9	13.5	15.2	12.3	21.2	20.5	5.2
11	5.2	10.4	11.7	10.8	8.8	13.1	14.3	12.2	22.0	21.3	6.6
	5.9	10.5	11.8	10.9	8.9	13.1	15.0	12.2	21.9	21.3	7.0
12	5.8	10	11.5	10.6	8.7	12.9	14.2	12.1	22	21.2	6.4
	6.2	10.4	11.7	11.1	8.9	12.9	14.7	12.3	25.4	21.6	7.3
13	6.3	11.1	12.1	11.7	9.3	13.0	14.5	12.3	22.4	20.9	6.2
	6.3	11.3	12.1	11.9	9.4	13.0	14.9	12.4	21.6	20.5	6.2
14	6.2	11.2	12.1	12.0	9.4	12.9	14.2	12.3	21.7	20.9	6.2
	6.1	11.3	12.1	11.8	9.5	13.2	17.3	12.3	20.6	20.4	5.8
15	6.1	11.4	12.2	12.1	9.5	13.4	16.1	12.3	20.7	20.6	5.7
	5.5	11.3	12.2	12.0	9.4	13.1	15.0	12.2	21.6	20.7	4.9
16	5.0	11.4	12.3	12.1	9.4	13.0	15.0	12.2	23.6	21.1	4.2
	4.7	11.4	12.1	12.0	9.4	13.0	14.6	12.2	21.4	20.7	3.7
17	4.8	11.7	12.2	11.9	9.6	13.6	16.1	12.4	20.0	19.9	3.3
	4.3	11.4	12.2	11.9	9.4	13.2	14.7	12.2	20.9	20.4	3.3
18	4.6	12.8	12.3	12.1	9.5	13.3	15.8	12.4	21.4	20.4	3.3
	4.6	14.8	12.2	12.0	9.5	13.0	14.9	12.3	21.2	20.4	3.7
19	5.0	15.5	12.3	12.0	9.5	13.6	15.2	12.4	21.1	20.5	4.1
	5.1	15.7	12.2	12.0	9.5	13.1	14.5	12.4	20.6	20.6	4.4
20	5.4	15.5	12.1	13.8	9.6	13.0	15.2	12.5	20.4	20.1	4.7
	5.8	15.9	12.2	16.2	9.6	13.2	15.3	12.4	21.1	20.3	5.2
21	6.1	16.7	12.3	17.3	9.7	13.3	15.7	12.5	21.3	20.2	5.5
	6.3	17.2	12.4	18.0	9.7	13.2	15.3	12.5	21.1	20.4	5.8
22	6.4	17.4	12.5	18.2	9.8	13.1	15.4	12.5	20.7	20.2	5.8
	6.5	17.5	12.5	18.3	9.8	13.0	15.3	12.5	21.0	20.2	6.0
23	6.6	17.7	12.5	18.7	9.8	13.0	15.3	12.5	21.5	20.3	6.1
	6.5	18.0	12.6	18.9	9.9	13.0	15.4	12.5	21.4	20.3	5.9

HOURS	0 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 8											
0	6.5	18.0	12.6	19.0	10.0	13.0	15.4	12.5	20.8	20.2	5.9
	6.5	18.3	12.7	19.3	10.0	13.0	15.4	12.5	20.9	20.3	6.0
1	6.5	18.5	12.7	19.5	10.0	13.0	15.5	12.5	21.6	20.5	5.9
	6.2	18.7	12.7	19.8	10.0	12.9	14.9	12.4	21.9	20.7	5.6
2	5.9	18.7	12.8	19.9	10.1	12.8	14.8	12.4	21.6	20.7	5.2
	5.8	18.7	12.8	19.8	10.1	12.8	14.8	12.4	21.2	20.6	5.3
3	5.7	18.8	12.9	20.0	10.1	12.9	14.9	12.4	21.3	20.7	5.0
	5.3	18.8	13.0	20.0	10.2	12.8	14.8	12.4	21.8	20.6	4.3
4	5.1	18.9	13.0	20.0	10.2	12.8	14.8	12.4	21.8	20.7	4.1
	5.1	19.0	13.0	20.0	10.2	12.8	14.8	12.4	21.3	20.6	4.3
5	5.2	19.0	13.1	20.1	10.3	12.8	14.9	12.4	21.2	20.7	4.6
	5.3	19.1	13.1	20.1	10.3	12.9	15.0	12.5	21.5	20.7	4.7
6	5.4	19.0	13.1	20.1	10.3	12.8	14.8	12.4	21.8	20.7	4.9
	5.6	19.1	13.1	20.1	10.4	12.8	14.9	12.4	21.8	20.6	5.0
7	5.7	19.0	13.1	20.0	10.4	12.8	14.9	12.4	21.1	20.6	5.2
	5.7	19.1	13.2	20.1	10.4	12.8	14.9	12.4	21.1	20.6	5.2
8	5.7	19.2	13.2	20.3	10.5	12.8	14.9	12.4	21.7	20.7	5.2
	5.7	19.1	13.2	20.1	10.5	12.8	14.9	12.3	21.7	20.6	5.2
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											

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HOURS	0 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 9											
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
	6.0	11.6	11.6	11.4	9.6	12.8	14.6	12.7	18.8	18.4	2.7
18	5.3	11.6	11.5	11.1	9.6	12.9	14.0	12.6	17.9	17.5	2.2
	4.8	11.5	11.9	11.7	9.5	12.6	13.9	12.5	19.5	19.1	1.9
19	4.0	11.3	12.6	12.6	9.3	12.4	13.8	12.3	22.0	22.3	1.5
	3.7	14.7	12.6	12.6	9.3	12.7	13.8	12.4	22.0	22.2	1.6
20	3.7	16.6	12.6	12.6	9.3	12.7	13.8	12.4	21.6	22.0	1.0
	3.4	16.8	12.6	12.5	9.3	12.9	14.2	12.5	21.0	21.8	0.7
21	3.5	17.0	12.6	12.5	9.3	12.6	14.0	12.4	21.3	21.6	0.4
	3.2	17.2	12.5	12.6	9.4	12.6	15.1	12.4	21.6	21.5	0.0
22	2.9	17.5	12.6	12.9	9.5	13.1	15.6	12.4	21.2	21.4	0.0
	2.7	17.7	12.5	12.5	9.4	12.6	14.5	12.4	21.1	21.7	-0.5
23	2.6	17.4	12.3	12.2	9.5	12.6	14.3	12.5	20.9	21.0	-1.0
	2.6	15.8	11.8	11.6	9.5	12.6	14.2	12.4	19.9	19.2	-1.4

HOURS	0 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 10											
0	2.6	14.6	11.5	11.1	9.6	12.6	14.2	12.4	18.6	17.9	-1.5
	3.0	14.1	11.4	10.9	9.7	12.6	14.3	12.4	17.7	17.2	-1.4
1	3.1	13.7	11.3	10.7	9.7	12.6	14.2	12.4	17.6	16.7	-1.9
	3.1	13.5	11.2	10.6	9.6	12.6	14.1	12.4	18.1	16.3	-2.0
2	3.0	13.3	11.1	10.5	9.6	12.6	14.1	12.4	17.3	16.1	-2.2
	2.9	13.2	11.0	10.3	9.6	12.6	14.0	12.3	16.8	15.8	-2.3
3	2.9	13.1	10.9	10.2	9.6	12.6	14.0	12.3	16.7	15.5	-2.8
	2.4	13.1	10.8	10.1	9.6	12.7	14.0	12.3	17.2	15.4	-2.8
4	2.3	12.8	10.7	10.0	9.6	12.6	13.9	12.3	16.5	15.1	-2.9
	2.1	12.7	10.6	9.8	9.6	12.6	13.8	12.3	16.1	15.0	-2.8
5	2.2	12.6	10.5	9.7	9.5	12.6	13.8	12.3	16.0	14.8	-2.7
	2.1	12.4	10.3	9.6	9.5	12.5	13.8	12.2	16.5	14.6	-2.4
6	1.8	12.3	10.2	9.5	9.5	12.5	13.7	12.2	16.1	14.5	-2.7
	1.9	12.2	10.1	9.4	9.4	12.5	13.7	12.2	15.5	14.3	-3.0
7	1.9	12.1	10.0	9.3	9.4	12.5	13.6	12.2	15.3	14.2	-3.0
	1.8	12.0	9.9	9.2	9.3	12.4	13.6	12.1	15.9	14.1	-2.9
8	1.6	11.9	9.7	9.0	9.3	12.4	13.5	12.2	15.6	13.9	-3.0
	2.5	12.6	9.2	8.7	8.7	12.5	13.4	12.0	14.7	13.3	-3.1
9	2.3	12.4	8.2	7.7	7.7	12.5	12.7	11.6	14.0	12.3	-3.2
	1.4	11.1	8.4	8.4	6.7	16.3	12.3	11.5	16.8	15.8	-2.6
10	1.6	9.9	9.4	9.4	7.4	19.5	15.1	11.6	19.6	18.3	-0.5
	1.8	9.8	9.8	9.8	9.2	18.6	14.1	11.7	20.6	19.1	1.3
11	2.2	10.6	10.1	10.1	8.2	18.2	14.4	11.8	21.4	19.7	4.3
	3.3	10.7	10.2	10.3	8.2	20.1	14.9	11.8	21.7	19.9	9.8
12	3.0	10.4	10.2	10.4	8.1	18.9	14.2	11.8	22.4	20.5	13.4
	4.7	11.1	10.6	10.9	8.2	18.9	14.7	11.9	22.4	20.8	8.3
13	4.8	10.6	10.9	11.2	8.2	18.9	14.3	11.9	22.2	21.2	4.1
	5.3	10.6	11.1	11.6	8.3	18.9	14.1	12.0	22.1	20.8	4.0
14	6.1	10.7	11.1	11.5	8.5	18.5	14.9	12.1	21.5	20.3	4.5
	6.4	10.8	11.4	12.1	9.1	18.7	15.0	12.1	21.8	20.7	6.1
15	6.6	10.7	11.6	12.5	9.0	19.1	14.3	12.0	22.2	21.3	8.5
	6.4	10.8	11.8	13.0	9.1	19.2	14.1	12.1	22.4	21.5	4.9
16	7.1	10.8	12.0	13.1	9.2	19.3	14.7	12.2	22.3	21.5	4.2
	6.0	10.8	12.1	12.9	9.1	19.3	14.3	12.2	22.2	21.4	2.6
17	5.2	10.9	12.0	12.5	9.0	18.8	14.5	12.2	21.4	20.5	1.0
	4.7	11.0	11.6	11.8	9.1	17.5	14.7	12.1	23.5	19.1	0.1
18	3.9	12.0	11.2	11.3	9.2	17.1	15.2	12.1	20.5	18.2	-0.5
	3.4	13.7	11.5	11.6	9.1	16.7	14.7	12.1	20.1	18.0	-0.8
19	3.2	13.2	11.3	11.2	9.2	16.3	14.5	12.1	18.7	17.2	-1.0
	3.2	13.0	11.2	11.1	9.2	15.9	14.6	12.2	18.0	16.8	-1.7
20	2.7	17.0	12.2	12.4	9.0	18.0	14.3	12.0	20.8	19.3	-2.1
	2.5	18.7	12.6	12.9	9.0	18.4	14.9	12.0	21.8	20.5	-2.3
21	2.3	19.3	12.6	13.0	8.9	16.8	14.3	12.0	22.3	20.9	-2.5
	2.3	19.6	12.6	13.1	9.0	15.9	14.3	12.0	22.5	21.1	-2.7
22	2.2	19.7	12.7	13.1	9.1	15.3	14.4	12.1	22.4	21.2	-2.9
	2.4	18.7	12.7	13.2	9.1	15.3	15.3	12.1	22.3	21.1	-3.2
23	2.4	16.2	12.1	12.4	9.2	14.8	14.6	12.0	21.3	19.8	-3.1
	2.4	15.0	11.6	11.8	9.2	14.6	14.6	12.0	19.5	18.5	-2.9

HOURS	0 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 11											
0	2.5	14.4	11.3	11.2	9.4	14.5	14.5	12.0	18.6	17.6	-2.9
	2.5	14.1	11.2	10.9	9.4	14.4	14.5	12.1	18.8	17.0	-2.7
1	2.3	13.8	11.1	10.6	9.4	14.2	14.4	12.0	18.5	16.6	-2.1
	2.4	13.6	11.1	10.5	9.4	14.2	14.4	12.1	17.5	16.2	-2.1
2	2.3	13.3	11.0	10.5	9.4	14.1	14.3	12.1	17.2	15.8	-1.8
	2.1	13.2	10.7	10.3	9.4	14.0	14.2	12.0	17.6	15.6	-2.0
3	2.2	13.1	10.6	10.1	9.4	13.9	14.1	12.0	17.5	15.4	-2.3
	2.0	13.0	10.5	10.0	9.3	13.8	14.1	12.0	16.7	15.1	-2.6
4	2.0	12.8	10.4	9.8	9.3	13.7	14.0	12.0	16.4	15.0	-2.8
	1.8	12.7	10.3	9.7	9.2	13.7	14.0	12.0	16.7	14.8	-3.1
5	1.7	12.6	10.2	9.6	9.2	13.6	13.9	12.0	16.8	14.6	-3.4
	1.6	12.4	10.1	9.5	9.2	13.6	13.8	12.0	16.0	14.5	-3.0
6	1.6	12.3	10.0	9.5	9.2	13.6	13.8	11.9	15.8	14.3	-3.2
	1.6	12.2	9.9	9.3	9.2	13.5	13.7	11.9	16.0	14.1	-2.6
7	1.6	12.0	9.8	9.2	9.1	13.4	13.6	11.9	16.2	14.0	-2.8
	1.5	12.0	9.7	9.1	9.1	13.3	13.6	11.9	15.5	13.9	-3.3
8	1.5	12.0	9.6	9.0	9.1	13.3	13.6	11.9	15.2	13.7	-3.0
	1.4	11.8	9.5	8.9	9.0	13.2	13.5	11.9	15.3	13.6	-3.0
9	1.3	10.3	8.6	8.3	8.0	13.5	13.5	11.9	17.0	14.2	-2.0
	1.3	9.1	8.6	8.1	6.5	13.4	14.6	11.7	19.6	18.1	-1.0
10	1.5	9.2	9.0	8.4	6.4	14.1	14.9	11.7	21.0	19.3	0.3
	3.0	10.1	9.7	8.9	7.2	14.0	16.4	12.6	20.2	17.5	2.1
11	3.0	9.3	8.8	8.1	6.3	13.0	14.4	12.0	18.1	16.4	3.7
	3.2	9.3	9.5	9.1	7.1	13.1	14.6	11.7	21.2	19.6	7.2
12	3.8	9.9	10.2	10.5	7.4	17.1	14.2	11.7	23.3	20.7	9.5
	4.0	9.7	10.3	10.7	7.4	18.0	13.8	11.7	24.6	21.4	7.4
13	4.3	10.1	10.6	11.1	8.2	18.4	15.3	11.8	22.8	21.2	4.5
	4.2	10.0	10.6	11.1	7.7	18.5	14.4	11.7	26.3	21.7	4.5
14	5.4	10.0	10.4	11.0	7.8	17.7	13.9	11.7	27.6	21.5	4.6
	6.3	10.2	10.4	11.0	8.1	17.1	13.9	11.7	23.2	20.7	5.4
15	6.7	10.2	10.6	11.3	8.3	17.5	14.4	11.8	22.3	20.7	7.0
	6.8	10.3	10.7	11.6	8.5	17.5	14.1	11.7	22.4	20.8	4.4
16	6.7	10.5	10.9	11.8	8.7	17.6	14.9	12.0	21.6	20.6	3.5
	6.1	10.4	11.0	11.7	8.5	17.5	14.5	11.9	21.3	20.6	1.9
17	5.3	10.5	11.0	11.6	8.4	17.5	14.3	11.9	21.5	20.8	0.5
	4.9	10.8	11.3	11.8	8.6	17.8	16.3	12.1	21.7	20.5	-0.1
18	4.0	10.6	11.6	12.0	8.6	18.3	14.8	12.0	21.8	21.1	-0.8
	3.3	10.6	11.6	12.1	8.5	18.6	14.9	12.0	21.4	21.4	-1.2
19	3.1	10.6	11.6	12.0	8.6	18.3	14.8	12.0	21.3	21.0	-1.5
	3.1	12.5	11.5	11.8	8.6	18.0	14.7	12.0	21.7	20.6	-1.6
20	2.7	15.1	11.6	12.0	8.5	17.3	14.5	11.9	21.5	20.9	-1.7
	2.1	15.7	11.7	12.0	8.6	16.2	14.8	11.9	21.1	21.0	-0.6
21	1.6	16.0	11.6	11.9	8.6	15.4	14.3	11.9	21.1	21.0	-0.1
	1.0	16.2	11.6	11.9	8.6	14.9	14.3	11.8	21.7	21.0	-0.9
22	0.9	15.8	11.4	11.6	8.6	14.8	15.1	11.9	21.0	20.2	-1.1
	0.7	14.2	11.1	11.0	8.7	14.5	14.4	11.7	19.3	18.6	-1.6
23	0.6	13.3	10.9	10.5	8.7	14.3	14.2	11.7	18.5	17.7	-1.8
	0.5	12.9	10.8	10.1	8.7	14.2	14.2	11.7	18.7	17.0	-2.1

HOURS	0 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 12											
0	0.2	12.6	10.7	10.0	8.7	14.1	14.1	11.7	18.3	16.6	-2.2
	0.0	12.4	10.6	9.9	8.7	14.0	14.0	11.6	17.4	16.2	-1.9
1	0.0	12.2	10.4	9.8	8.6	13.9	14.0	11.6	17.1	15.9	-1.6
	0.0	12.1	10.4	9.6	8.6	13.8	13.9	11.6	17.7	15.7	-1.6
2	0.0	12.0	10.2	9.5	8.6	13.8	13.8	11.5	17.3	15.4	-1.5
	0.1	11.9	10.1	9.3	8.6	13.7	13.7	11.5	16.6	15.2	-1.3
3	0.2	11.8	10.0	9.2	8.6	13.6	13.6	11.5	16.3	15.0	-1.0
	0.3	11.6	9.9	9.1	8.6	13.5	13.6	11.5	16.9	14.9	-0.7
4	0.4	11.6	9.7	9.0	8.5	13.5	13.5	11.5	16.7	14.7	-0.6
	0.5	11.6	9.7	8.9	8.5	13.4	13.5	11.5	15.9	14.5	-0.4
5	0.6	11.5	9.5	8.8	8.5	13.3	13.5	11.5	15.7	14.4	-0.2
	0.7	11.3	9.5	8.8	8.5	13.2	13.4	11.5	16.2	14.2	-0.1
6	0.8	11.4	9.4	8.6	8.5	13.2	13.5	11.6	16.2	14.1	0.0
	0.8	11.2	9.3	8.6	8.5	13.1	13.3	11.5	15.4	14.0	0.0
7	0.9	11.1	9.2	8.5	8.4	13.0	13.2	11.5	15.2	13.8	0.0
	0.9	11.0	9.1	8.3	8.4	13.0	13.2	11.5	15.5	13.7	-0.1
8	0.9	11.0	9.1	8.2	8.4	13.0	13.1	11.5	15.7	13.6	0.0
	0.9	11.0	9.0	8.2	8.4	12.9	13.1	11.5	15.0	13.5	-0.1
9	1.5	11.3	9.4	8.4	8.8	11.6	10.0	11.8	13.9	12.0	0.0
	1.4	11.1	8.7	7.5	6.7	9.3	8.3	11.6	13.1	11.2	0.1
10	1.0	9.3	8.2	7.1	5.3	12.9	11.4	11.4	14.3	12.6	0.0
	0.5	8.5	8.9	8.1	4.1	15.7	12.1	10.9	18.2	17.3	0.0
11	0.5	8.2	9.1	8.6	4.1	17.9	11.9	10.9	19.6	19.1	0.1
	0.7	9.2	9.8	9.9	6.3	18.7	12.4	11.0	20.3	20.3	0.3
12	0.9	9.3	10.0	10.1	6.6	18.7	12.3	11.0	21.0	20.4	0.5
	1.1	9.4	10.1	10.4	6.7	19.0	12.2	11.1	21.2	20.7	0.6
13	1.6	9.7	10.4	10.7	7.0	18.6	13.5	11.2	21.2	20.7	0.7
	1.5	9.4	10.2	10.6	6.8	18.3	12.6	11.0	21.7	21.0	1.1
14	1.8	9.5	10.4	10.8	7.0	17.8	13.0	11.1	22.1	21.3	1.3
	1.9	9.4	10.5	10.9	6.9	17.6	12.8	11.1	22.1	21.3	1.6
15	2.5	9.8	10.3	10.6	7.3	17.4	12.9	11.3	20.7	19.8	1.7
	2.5	9.7	9.8	9.7	7.4	16.0	13.3	11.2	18.9	18.0	1.6
16	2.5	9.7	9.6	9.3	7.5	15.1	13.2	11.2	18.0	16.9	1.5
	2.3	9.6	9.5	9.1	7.5	14.5	12.9	11.2	18.2	16.8	1.4
17	2.3	9.7	10.4	10.6	7.4	15.8	13.5	11.3	20.4	19.7	1.5
	2.2	9.6	9.9	9.9	7.4	16.0	12.9	11.2	19.2	18.7	1.5
18	2.4	9.7	9.7	9.5	7.6	15.3	13.2	11.3	18.2	17.5	1.7
	2.5	9.6	10.1	10.2	7.3	15.5	12.7	11.2	21.0	19.7	2.1
19	2.6	13.8	10.5	10.8	7.2	16.9	12.7	11.1	22.1	22.0	2.3
	2.7	16.4	10.6	11.1	7.2	17.3	12.7	11.1	22.0	22.5	2.4
20	3.0	17.0	10.7	11.1	7.3	17.5	12.9	11.2	21.9	22.5	2.8
	3.2	17.2	10.7	11.1	7.4	17.4	13.1	11.2	22.0	22.4	3.0
21	3.6	17.2	10.7	11.1	7.5	17.3	13.9	11.3	21.7	21.6	3.2
	3.6	17.6	10.8	11.2	7.6	17.2	13.2	11.2	21.7	21.7	3.3
22	3.7	17.9	10.9	11.3	7.6	17.4	13.3	11.2	21.7	22.1	3.4
	4.0	17.0	10.7	10.9	7.9	16.8	13.8	11.5	21.0	20.5	3.6
23	4.3	15.3	10.3	10.4	8.1	15.5	13.5	11.3	19.7	18.7	4.0
	4.6	14.6	10.2	9.9	8.2	14.8	13.5	11.3	18.2	17.5	4.1

HOURS	0 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 13											
0	4.7	13.8	10.1	9.8	8.3	14.3	13.4	11.3	17.5	16.7	3.9
	4.7	13.5	10.1	9.6	8.4	14.0	13.4	11.4	17.5	16.2	3.8
1	4.8	13.2	10.1	9.5	8.5	14.1	13.5	11.4	18.0	15.9	4.0
	5.0	13.0	10.0	9.4	8.5	13.7	13.4	11.4	16.9	15.5	4.2
2	5.1	12.9	10.0	9.3	8.6	13.6	13.4	11.5	16.5	15.3	4.3
	5.1	12.7	9.9	9.3	8.6	13.5	13.3	11.5	16.6	15.1	4.4
3	5.2	12.6	9.8	9.3	8.6	13.4	13.4	11.5	17.1	15.0	4.5
	5.5	12.5	9.7	9.2	8.7	13.2	13.2	11.5	15.8	14.6	4.8
4	5.4	12.5	9.8	9.2	8.7	13.3	13.3	11.5	16.3	14.8	4.7
	5.6	12.4	9.7	9.2	8.7	13.2	13.2	11.5	15.9	14.5	4.9
5	5.7	12.3	9.7	9.2	8.8	13.1	13.2	11.5	16.6	14.4	5.1
	5.8	12.2	9.7	9.2	8.8	13.1	13.2	11.5	15.9	14.2	5.2
6	5.9	12.2	9.7	9.2	8.9	13.0	13.2	11.6	15.4	14.1	5.2
	6.0	12.2	9.7	9.2	9.0	13.0	13.2	11.6	15.2	14.0	5.2
7	6.0	12.1	9.7	9.1	9.0	12.9	13.1	11.6	16.0	14.0	5.3
	6.0	12.1	9.7	9.2	9.0	12.9	13.1	11.6	15.7	13.8	5.3
8	6.1	12.0	9.7	9.1	9.0	12.8	13.1	11.6	15.0	13.7	5.2
	6.2	12.2	9.8	8.9	8.9	11.5	11.1	11.6	14.8	12.7	5.4
9	6.2	11.6	9.7	8.7	8.7	10.9	10.9	11.7	14.7	12.2	5.4
	6.1	9.5	9.5	8.6	8.4	11.8	12.1	11.7	15.8	13.1	5.3
10	6.3	9.5	9.5	8.7	8.3	11.6	11.9	11.8	14.7	13.0	5.4
	6.3	10.4	9.5	8.6	8.2	11.9	12.7	11.7	16.7	13.2	5.7
11	6.5	10.5	9.6	8.9	8.5	12.1	13.0	11.7	15.9	13.2	6.0
	6.7	10.5	9.7	9.1	8.8	12.1	13.1	11.7	15.7	13.2	6.4
12	6.7	10.4	9.7	9.1	8.8	12.2	12.8	11.7	15.6	13.1	6.3
	6.9	10.4	9.6	9.1	8.8	12.1	12.6	11.7	18.6	13.6	6.6
13	7.0	12.5	9.9	9.6	8.7	12.0	13.1	11.8	20.9	15.5	6.6
	6.6	17.3	10.6	11.0	8.4	11.9	12.8	11.6	25.1	19.9	6.7
14	6.9	18.6	11.0	11.4	8.4	11.8	13.8	11.5	26.8	21.2	6.9
	7.2	19.4	11.3	11.8	8.6	12.7	15.2	11.7	23.6	21.3	6.8
15	7.0	19.7	11.3	12.0	8.6	12.0	13.1	11.6	22.7	21.7	6.9
	7.4	20.2	11.7	12.3	8.9	12.4	15.8	11.8	22.4	21.8	7.0
16	7.7	18.9	11.5	12.0	9.3	12.5	18.1	12.1	20.7	19.6	6.9
	7.5	16.8	11.0	11.3	9.4	12.4	16.1	12.1	18.8	17.9	6.8
17	7.4	15.5	10.7	10.7	9.3	12.4	14.1	11.9	18.0	17.4	7.0
	7.5	18.0	11.4	11.6	9.3	12.2	14.2	11.9	20.3	19.2	7.0
18	7.2		11.9	12.4	9.1	12.1	14.0	11.8	22.6	22.0	6.8
19											
20											
21											
22											
23											

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HOURS	0 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 14											
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
	8.7	11.6	12.8	13.2	10.3	12.1	13.8	11.6	20.0	20.0	8.6
17	9.0	11.8	13.0	13.2	10.5	12.3	14.8	11.8	20.3	20.1	8.6
	8.9	13.1	13.5	13.7	10.7	12.3	15.2	11.9	21.6	21.5	8.4
18	9.0	18.5	13.7	14.0	10.7	12.4	16.6	12.7	21.8	22.2	8.6
	8.9	17.4	13.8	14.1	10.6	12.3	15.1	12.0	23.0	22.9	8.5
19	8.8	15.2	13.9	14.2	10.7	12.6	14.6	12.0	22.7	23.0	8.4
	9.2	14.3	13.7	14.0	10.8	12.7	18.6	12.0	21.3	20.7	8.5
20	9.3	13.8	13.2	13.4	10.9	12.8	17.5	12.0	19.6	18.6	8.4
	9.2	13.6	13.0	13.0	11.0	12.8	16.7	12.0	18.1	17.4	8.3
21	8.8	13.2	13.2	13.2	11.0	12.7	14.8	12.0	19.2	18.9	8.2
	8.9	13.1	14.2	14.5	10.9	12.6	16.5	12.0	22.3	22.5	8.3
22	8.9	13.2	14.2	14.6	10.9	12.7	15.4	11.9	22.7	22.9	8.1
	9.1	13.4	14.2	14.5	11.0	12.7	16.3	12.0	21.7	22.1	8.0
23	9.4	13.3	13.9	14.1	11.1	12.7	16.1	12.0	20.6	21.0	8.3
	9.0	13.1	13.3	13.4	11.0	12.7	15.1	12.0	19.5	19.6	8.2

HOURS	0 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 15											
0	9.1	13.1	13.0	13.0	11.0	12.6	14.6	11.9	19.3	18.7	8.5
	9.4	13.1	12.8	12.8	11.1	12.9	14.6	11.9	18.5	18.0	8.8
1	9.8	13.6	12.9	12.7	11.1	12.8	14.7	12.0	17.6	17.1	8.9
	9.5	13.5	12.8	12.6	11.2	12.7	14.7	12.0	17.5	16.6	8.2
2	9.0	13.5	12.7	12.5	11.1	12.7	14.6	12.0	18.1	16.3	7.5
	8.9	13.5	12.7	12.5	11.2	12.7	14.6	12.0	17.4	16.1	7.5
3	8.9	13.5	12.7	12.5	11.2	12.7	14.6	12.0	16.8	15.8	7.5
	8.9	13.5	12.6	12.4	11.2	12.7	14.5	12.0	16.7	15.7	7.6
4	8.9	13.5	12.6	12.4	11.2	12.7	14.4	12.0	17.5	15.6	7.6
	8.4	13.5	12.5	12.2	11.2	12.7	14.5	12.0	17.0	15.5	6.3
5	7.6	13.3	12.5	12.1	11.2	12.7	14.4	12.0	16.4	15.3	5.2
	7.6	13.3	12.4	12.0	11.2	12.8	14.4	12.1	16.3	15.2	4.5
6	7.4	13.2	12.3	11.9	11.1	12.7	14.3	12.1	17.1	15.2	4.1
	7.3	13.2	12.2	11.9	11.2	12.7	14.3	12.1	16.8	15.1	4.0
7	7.1	13.2	12.1	11.8	11.1	12.6	14.3	12.1	16.1	15.0	3.7
	7.1	13.1	12.1	11.7	11.1	12.7	14.2	12.1	15.9	14.9	3.7
8	7.0	13.1	12.0	11.6	11.1	12.6	14.2	12.1	16.6	14.8	3.7
	6.8	13.1	12.0	11.6	11.1	12.6	14.1	12.1	16.5	14.7	3.6
9											
10											
	6.8	11.9	11.1	10.8	10.5	12.9	13.2	12.2	16.1	14.4	4.4
11	6.8	11.6	10.8	10.5	10.4	12.8	13.2	12.1	16.3	14.5	4.7
	7.2	11.6	10.9	10.6	10.3	12.7	13.0	12.2	16.1	14.6	5.3
12	7.0	11.4	10.8	10.4	10.2	12.6	12.8	12.1	16.6	14.6	5.3
	7.1	11.7									
13	7.1	11.7	12.9	13.0	10.5	12.8	15.5	12.0	20.8	20.7	5.9
	7.4	11.9	13.1	13.5	10.5	13.2	15.0	12.1	24.6	22.1	6.5
14	7.4	11.9	13.1	13.5	10.5	14.6	14.9	12.0	27.5	22.6	6.0
	7.3	11.9	13.0	13.5	10.6	17.0	15.1	12.1	27.2	22.2	5.7
15	7.4	11.9	12.8	13.1	10.6	16.7	14.8	12.0	22.8	21.0	5.9
	7.3	12.0	12.5	12.8	10.7	16.1	14.7	12.1	20.7	19.8	5.5
16	7.1	12.0	12.4	12.5	10.7	15.6	14.7	12.1	19.6	18.8	4.5
	7.0	12.0	12.2	12.3	10.7	15.1	14.6	12.1	19.4	18.1	3.1
17	6.6	12.1	12.1	12.0	10.7	14.8	14.6	12.1	19.1	17.5	1.9
	5.9	12.1	12.4	12.5	10.7	15.6	14.8	12.2	19.9	18.3	0.8
18	5.3	12.0	13.2	13.6	10.5	18.3	15.6	12.1	25.2	22.2	0.3
	4.8	11.9	13.2	13.6	10.5	18.7	14.9	12.0	24.3	22.8	-0.1
19	4.9	12.1	12.9	13.1	10.6	17.7	16.7	12.1	21.6	20.7	-0.2
	4.7	12.2	12.6	12.5	10.7	16.5	16.8	12.1	19.8	18.8	-0.3
20	4.6	12.2	12.2	12.1	10.6	15.7	16.3	12.1	18.5	17.6	0.0
	4.3	12.8	12.2	11.9	10.5	15.5	15.5	12.1	18.5	17.7	-0.1
21	4.1	17.3	13.0	13.2	10.4	19.7	15.7	12.1	21.7	21.5	-0.4
	3.8	18.2	13.0	13.4	10.4	20.5	15.2	12.0	22.1	22.3	-0.8
22	3.7	17.7	12.8	13.1	10.3	17.8	15.4	12.0	21.1	21.8	-1.0
	3.4	16.3	12.3	12.5	10.5	16.5	15.3	12.0	20.0	19.8	-1.1
23	3.4	14.9	11.9	11.8	10.5	15.7	15.2	12.0	19.8	18.4	-1.0
	3.5	14.1	11.7	11.6	10.6	15.2	15.1	12.0	19.0	17.4	-0.7

HOURS	0 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 16											
0	3.6	13.6	11.7	11.6	10.5	14.9	15.0	12.0	18.0	16.7	-0.7
	3.5	13.6	11.6	11.3	10.5	14.8	15.0	12.0	17.8	13.6	-0.7
1	3.3	13.3	11.4	11.1	105.0	14.6	15.0	12.0	18.5	15.9	-0.6
	3.3	13.2	11.2	11.0	10.5	14.5	14.8	12.0	18.0	15.6	-0.6
2	3.2	13.1	11.1	10.8	10.4	14.5	14.8	11.9	17.1	15.4	-0.8
	3.0	13.0	11.0	10.7	10.4	14.3	14.7	12.0	17.0	15.2	-0.8
3	3.0	12.9	10.9	10.6	10.4	14.2	14.6	12.0	17.8	15.0	-0.8
	3.0	12.8	10.8	10.4	10.3	14.1	14.6	11.9	17.4	14.8	-1.0
4	2.9	12.7	10.7	10.3	10.3	14.0	14.5	11.9	16.6	14.7	-1.0
	2.8	12.6	10.6	10.2	10.2	14.0	14.5	11.9	16.4	14.5	-1.0
5	2.6	12.5	10.5	10.1	10.2	13.9	14.5	11.9	17.2	14.4	-1.4
	2.5	12.4	10.4	10.0	10.2	13.8	14.4	11.9	17.0	14.2	-1.8
6	2.3	12.3	10.2	9.8	10.1	13.8	14.3	11.9	16.1	14.1	-1.9
	2.0	12.2	10.1	9.7	10.1	13.7	14.3	11.9	15.9	14.0	-2.0
7	2.1	12.1	10.0	9.6	10.0	13.6	14.2	11.8	16.4	13.8	-2.2
	1.8	12.0	9.9	9.5	10.0	13.6	14.1	11.8	16.7	13.7	-2.1
8	1.6	12.0	9.8	9.5	10.0	13.6	14.1	11.8	15.7	13.6	-2.1
	1.7	11.8	9.7	9.3	9.9	13.5	14.0	11.7	15.4	13.4	-1.9
9	1.4	11.8	9.7	9.3	9.9	13.5	13.8	11.8	15.4	13.3	-1.5
	1.7	10.2	8.6	8.4	8.9	13.3	13.7	11.8	17.1	13.8	-0.8
10	1.7	9.9	9.1	9.1	8.7	15.9	13.9	11.7	17.2	16.1	-0.6
	1.8	9.4	9.8	10.1	8.5	18.0	15.8	11.8	20.0	19.4	-0.3
11	2.0	9.1	9.8	10.2	8.3	16.8	14.1	11.7	21.0	20.5	0.4
	2.5	9.2	10.2	10.6	8.3	15.4	14.4	11.8	21.6	21.1	3.1
12	4.0	9.2	10.2	10.8	8.4	14.6	14.7	11.9	21.9	21.4	6.4
	5.4	9.3	10.3	11.2	8.6	14.3	15.2	12.0	24.1	21.8	6.9
13	6.5	9.6	10.5	11.4	8.8	14.1	17.1	12.0	21.9	21.4	6.0
	7.0	9.8	10.8	11.6	9.1	13.9	18.1	12.1	21.3	20.2	6.0
14	7.5	10.2	10.9	11.9	9.2	13.8	16.4	12.0	21.1	19.5	6.0
	8.0	10.5	10.6	11.6	9.4	13.7	17.1	12.0	19.0	17.8	6.5
15	7.6	10.6	10.4	11.4	9.6	13.7	16.3	12.1	17.8	16.9	8.4
	7.5	10.7	10.3	11.1	9.7	13.6	15.9	12.0	17.7	16.1	6.7
16	7.2	10.7	10.2	10.7	9.5	13.5	15.6	12.0	17.7	15.6	6.5
	6.8	10.7	10.1	10.5	9.6	13.5	15.3	12.1	16.7	15.2	6.3
17	6.4	10.8	10.9	11.5	9.6	13.5	15.1	12.2	18.6	16.7	6.0
	6.2	10.7	11.9	12.9	9.5	13.5	15.0	12.1	21.5	19.8	5.9
18	6.2	10.7	12.1	13.1	9.5	13.6	14.9	12.1	22.0	20.4	6.1
	6.6	10.9	12.4	13.4	9.6	13.6	16.7	12.6	22.2	20.7	6.7
19	7.0	11.1	12.5	13.6	9.7	13.6	16.3	12.2	22.4	20.8	7.3
	7.3	11.0	12.6	13.7	9.7	13.5	14.8	12.1	22.5	20.5	7.4
20	7.6	11.2	12.8	13.9	9.7	13.7	17.0	12.2	22.4	20.9	7.6
	7.7	11.2	13.0	14.1	9.8	13.5	16.4	12.2	22.5	21.3	7.8
21	7.9	11.3	13.1	14.2	9.8	13.5	15.6	12.2	22.5	21.7	7.6
	8.0	11.3	13.2	14.3	9.8	13.4	16.2	12.2	22.4	21.8	7.6
22	8.1	11.5	13.2	14.3	9.9	13.7	16.4	12.4	22.0	21.7	7.6
	8.2	11.7	12.6	13.5	10.0	14.3	15.9	12.2	20.7	20.0	7.8
23	8.3	11.7	12.1	13.1	10.1	13.5	15.4	12.2	19.8	18.7	8.0
	8.5	11.7	12.0	12.6	10.1	13.5	15.3	12.1	18.7	17.9	8.2

HOURS	0 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 17											
0	8.8	11.9	11.8	12.4	10.1	13.4	15.2	12.1	18.1	17.3	8.5
	9.0	11.9	11.7	12.2	10.1	13.3	15.0	12.2	18.6	16.8	8.7
1	9.2	12.1	11.7	12.1	10.2	13.3	15.0	12.2	18.3	16.6	8.9
	9.3	12.1	11.7	12.0	10.2	13.3	15.0	12.1	17.4	16.3	9.1
2	9.2	12.2	11.7	11.9	10.3	13.2	14.9	12.2	17.1	16.0	8.8
	9.0	12.3	11.7	12.0	10.4	13.2	14.9	12.2	17.8	15.9	8.4
3	8.8	12.3	11.7	11.9	10.4	13.2	14.3	12.3	17.5	15.7	8.4
	8.6	12.3	11.6	11.7	10.5	13.3	14.8	12.3	16.7	15.5	8.2
4	8.5	12.3	11.6	11.7	10.5	13.2	14.8	12.3	16.6	15.4	8.2
	8.5	12.3	11.5	11.6	10.5	13.2	14.7	12.3	17.3	15.3	8.2
5	8.4	12.6	11.5	11.7	10.5	13.4	14.9	12.5	17.2	15.3	7.7
	8.2	12.4	11.6	11.6	10.5	13.6	14.9	12.4	16.4	15.3	7.5
6	8.1	12.3	11.6	11.6	10.6	13.4	15.0	12.4	16.2	15.0	7.4
	8.0	12.2	11.5	11.6	10.6	13.3	14.9	12.5	17.0	14.9	7.3
7	7.8	12.2	11.4	11.5	10.5	13.2	14.8	12.5	16.5	14.8	7.2
	7.8	12.2	11.5	11.5	10.6	13.2	14.8	12.5	15.9	14.7	7.3
8	7.7	12.3	11.4	11.5	10.6	13.2	14.5	12.4	15.9	15.0	7.2
	8.1	12.2	11.5	11.5	10.7	14.0	14.5	12.5	16.5	14.5	7.1
9	7.6	11.0	10.6	10.6	10.1	13.4	14.5	12.6	16.5	14.4	7.5
	7.9	11.0	10.6	10.5	10.1	13.2	14.4	12.6	15.6	14.3	8.2
10	8.6	11.1	10.8	10.6	10.1	13.2	14.2	12.6	15.5	14.4	9.0
	9.5	11.4	11.0	10.6	10.2	13.2	14.3	12.5	16.3	14.4	10.0
11	10.4	11.7	11.3	10.9	10.5	13.1	14.3	12.5	16.4	14.6	11.2
	11.2	12.2	11.8	11.4	11.1	13.3	14.3	12.5	15.7	14.5	14.0
12	11.7	12.5	12.0	11.8	11.3	13.5	14.4	13.1	15.3	14.2	14.8
	12.2	12.5	12.3	12.2	11.7	13.4	14.5	13.1	18.2	14.5	14.4
13	12.4	12.3	12.0	12.1	11.5	13.4	15.1	13.1	21.9	15.4	13.2
	12.6	12.3	11.7	11.9	11.2	13.2	15.7	13.2	22.8	15.9	13.4
14	12.7	12.2	11.7	12.1	11.2	13.2	15.3	13.1	19.6	15.4	13.4
	12.2	12.2	11.7	12.1	11.2	13.2	14.9	13.1	17.5	14.8	12.8
15	11.7	12.2	11.7	12.1	11.3	13.2	14.8	13.1	17.4	14.7	12.6
	11.3	12.3	11.8	12.0	11.3	13.2	14.7	13.1	16.4	14.5	11.9
16	10.9	12.2	11.8	11.9	11.3	13.2	14.6	13.1	15.9	14.4	10.9
	10.4	12.3	11.9	11.9	11.3	13.2	14.6	13.1	15.8	14.3	10.8
17	10.1	12.3	11.9	11.9	11.3	13.3	14.5	13.1	16.8	14.3	10.6
	10.1	12.3	12.6	12.8	11.3	13.8	15.7	13.2	21.0	16.3	10.9
18	10.0	12.3	13.8	14.2	11.2	13.4	16.7	13.0	22.5	19.3	10.8
	10.0	12.5	14.1	14.6	11.3	13.7	16.6	12.7	21.7	20.3	10.6
19	9.9	12.4	14.2	14.8	11.2	13.4	16.7	12.6	21.7	20.9	10.6
	10.0	12.5	13.9	14.3	11.3	13.6	17.8	12.6	19.9	19.2	10.7
20	10.1	12.6	13.5	13.8	11.4	13.6	16.9	12.7	18.4	17.7	10.3
	9.9	12.6	13.3	13.6	11.4	14.3	16.4	12.7	17.9	17.3	10.1
21	9.5	15.5	14.2	14.7	11.3	15.0	18.2	13.0	20.1	20.0	9.9
	9.5	19.1	14.5	15.0	11.4	14.4	18.6	13.3	20.6	20.5	9.7
22	9.4	16.9	13.8	14.3	11.4	14.1	15.8	12.8	19.1	19.0	9.6
	9.4	15.4	13.4	13.8	11.5	13.8	15.3	12.7	18.1	17.8	9.8
23	9.5	14.7	13.1	13.5	11.6	13.7	15.2	12.6	18.0	17.0	10.0
	9.7	14.4	13.0	13.2	11.6	13.7	15.2	12.6	18.2	16.5	10.1

HOURS	0 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 18											
0	9.7	14.2	13.0	13.0	11.6	13.7	15.1	12.6	17.2	16.1	9.9
	9.7	14.0	12.8	12.9	11.6	13.6	15.1	12.7	16.8	15.9	9.9
1	9.5	14.0	12.8	12.8	11.6	13.6	15.0	12.6	17.0	15.7	9.5
	9.4	14.0	12.8	12.7	11.8	13.6	15.0	12.6	17.6	15.5	9.5
2	9.2	13.9	12.7	12.7	11.7	13.6	14.9	12.6	16.7	15.4	9.1
	9.1	13.8	12.6	12.6	11.7	13.5	14.9	12.6	16.4	15.2	9.0
3	9.0	13.8	12.6	12.5	11.7	13.5	14.9	12.6	16.4	15.2	8.7
	8.9	13.8	12.6	12.5	11.7	13.5	14.8	12.6	17.2	15.2	8.7
4	9.0	13.7	12.5	12.4	11.7	13.5	14.8	12.5	16.6	15.1	8.8
	8.9	13.7	12.5	12.4	11.7	13.5	14.8	12.6	16.1	15.0	8.5
5	8.9	13.7	12.5	12.3	11.7	13.8	14.8	12.5	16.2	14.9	8.5
	9.0	13.7	12.5	12.3	11.7	14.8	15.0	12.6	17.1	14.8	8.2
6	8.7	13.7	13.5	13.6	11.7	14.0	15.6	12.6	18.4	17.3	7.9
	8.7	13.6	14.2	14.6	11.7	13.8	15.6	12.6	20.1	20.0	8.2
7	8.7	13.4	14.3	14.8	11.6	17.4	15.0	12.5	20.6	21.1	8.2
	8.9	13.5	14.1	14.6	11.6	18.0	15.7	12.5	21.0	20.6	8.2
8	9.2	13.8	14.3	14.8	11.7	18.7	16.7	12.5	21.7	21.1	8.4
	9.2	13.7	13.9	14.1	11.4	17.2	17.3	12.6	20.0	20.0	8.0
9	8.9	12.9	13.1	12.9	10.8	15.0	14.4	12.7	16.7	16.8	7.7
	8.7	12.6	12.8	12.4	10.8	12.4	12.1	12.5	16.4	15.0	7.9
10	8.6	11.9	12.5	11.8	10.5	12.3	13.7	12.3	16.7	14.9	8.0
	8.7	11.8	12.3	11.5	10.4	13.6	14.9	12.2	16.6	15.2	8.1
11	8.9	11.7	12.2	11.3	10.3	13.7	14.8	12.2	16.1	15.1	8.2
	9.0	11.8	12.2	11.3	10.3	13.8	14.6	12.2	16.1	15.0	8.2
12	9.0	11.6	12.2	11.2	10.2	13.7	14.2	12.3	17.3	15.1	8.0
	8.9	12.0	12.3	11.5	10.6	13.7	14.2	12.3	17.9	15.2	8.0
13	8.8	12.4	12.4	12.0	11.0	13.6	14.0	12.2	17.6	15.1	8.1
	9.0	12.4	12.3	12.0	11.0	13.7	14.1	12.2	17.2	15.1	8.5
14	9.0	12.4	12.3	12.0	11.1	13.5	14.1	12.1	17.0	15.0	8.4
	9.1	12.5	12.3	12.0	11.2	13.5	14.1	12.2	16.8	14.9	8.5
15	9.1	12.4	12.3	12.0	11.2	13.5	14.1	12.2	16.1	14.7	8.4
	8.8	12.4	12.2	11.9	11.2	13.5	14.1	12.2	15.8	14.6	7.9
16	8.6	12.4	12.2	11.9	11.2	13.5	14.1	12.2	16.1	14.6	7.7
	8.3	12.5	12.2	11.9	11.2	13.4	14.2	12.2	16.9	14.6	7.3
17	7.7	12.5	12.7	12.6	11.1	13.4	14.2	12.3	18.0	16.8	6.2
	6.9	12.3	13.7	13.9	11.0	13.4	14.1	12.3	21.5	21.1	5.5
18	6.7	12.3	13.9	14.2	11.0	13.7	14.7	12.3	22.3	22.0	5.3
	6.3	12.3	14.0	14.3	11.0	13.5	14.4	12.3	22.7	22.3	4.7
19	5.8	12.3	14.0	14.3	10.9	13.5	14.7	12.3	22.5	22.4	4.0
20											
21											
22											
23											

HOURS	0 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
	2.9	16.4	18.0	11.5	15.1	11.8	8.8	10.6	10.5	10.4	5.0
	3.0	17.5	18.6	11.6	15.5	11.8	8.8	11.0	10.7	10.4	5.2
	3.0	19.1	19.2	11.6	16.2	11.8	8.8	11.7	11.1	10.4	5.4
	3.1	21.5	21.3	11.7	16.4	12.3	8.7	12.5	11.8	10.3	5.1
	3.1	21.9	21.9	11.7	16.9	11.6	8.7	12.6	11.9	10.0	5.5
	3.0	21.7	21.9	11.6	15.6	11.8	8.6	12.3	11.7	9.9	5.3
	3.1	19.3	20.2	11.6	13.9	11.5	8.6	11.5	11.0	9.9	5.2
	3.3	17.2	17.9	11.6	16.2	11.7	8.7	10.9	10.6	10.0	5.6
	3.5	19.1	20.0	11.6	17.7	11.6	8.7	11.6	11.1	10.0	5.6
	3.5	21.6	21.7	11.6	14.9	11.4	8.5	12.2	11.6	9.8	5.2
	3.5	21.3	22.0	11.6	15.7	11.7	8.5	12.1	11.5	9.8	4.9
	3.5	21.1	22.3	11.8	15.6	11.9	8.5	12.0	11.4	10.5	5.1
	3.6	21.1	22.5	11.8	14.5	11.1	8.5	11.8	11.3	9.8	4.9
	3.6	20.7	21.2	11.6	13.1	11.1	8.5	11.6	11.1	9.7	5.1

HOURS	0 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 20											
0	5.1	10.5	10.4	10.4	8.8	11.7	14.7	11.5	16.8	15.7	2.9
	5.2	10.6	10.3	10.3	8.9	11.7	14.5	11.5	16.4	15.2	2.7
1	4.9	10.6	10.2	10.3	8.9	11.7	14.3	11.5	16.9	14.9	2.2
	4.3	10.5	10.2	10.0	8.9	11.7	14.1	11.5	16.5	14.6	1.3
2	3.6	10.6	10.1	9.9	8.9	11.7	13.9	11.5	15.7	14.3	1.0
	3.2	10.6	10.0	9.8	8.9	11.7	13.8	11.5	15.4	14.1	0.8
3	3.2	10.7	9.9	9.7	8.9	12.0	13.9	11.5	16.0	14.0	1.2
	3.5	10.5	9.7	9.6	8.9	11.7	13.8	11.5	15.8	13.8	1.8
4	3.6	10.4	9.6	9.4	8.8	11.7	13.6	11.5	15.0	13.6	2.1
	3.6	10.4	9.5	9.3	8.8	11.7	13.6	11.6	14.7	13.5	2.3
5	3.9	10.4	9.4	9.2	8.8	11.6	13.6	11.6	15.2	13.3	2.5
	4.0	10.4	9.4	9.1	8.8	11.7	13.5	11.6	15.4	13.2	2.6
6	4.0	10.4	9.3	9.1	8.8	11.6	13.5	11.6	14.6	13.1	2.7
	4.2	10.3	9.3	9.1	8.8	11.6	13.4	11.5	14.3	13.0	2.7
7	4.1	10.3	9.2	9.0	8.8	11.6	13.2	11.5	14.5	12.9	2.7
	4.1	10.2	9.2	8.9	8.8	11.6	13.2	11.5	15.1	12.8	2.7
8	4.1	10.2	9.1	8.8	8.8	11.6	13.1	11.5	14.3	12.7	2.6
	3.8	10.3	9.1	8.8	8.7	11.6	13.0	11.5	14.0	12.6	2.3
9	3.8	10.2	9.0	8.7	8.8	11.5	13.0	11.5	13.8	12.5	2.3
	3.7	10.2	9.0	8.7	8.7	11.5	12.9	11.4	14.5	12.4	2.3
10	3.7	10.2	8.9	8.6	8.6	11.6	12.9	11.4	14.4	12.4	2.5
	3.9	8.8	8.6	8.6	8.0	12.3	12.7	11.5	15.5	14.0	2.6
11	4.0	8.4	9.4	9.6	7.9	17.9	13.2	11.4	18.1	16.7	2.8
	4.2	8.7	9.5	10.1	10.6	18.9	14.9	11.6	18.7	17.4	2.7
12	4.5	8.4	9.1	9.5	9.2	14.6	13.8	11.4	17.2	15.4	2.7
	4.4	8.2	8.5	8.8	8.5	13.4	13.2	11.1	17.2	14.9	2.7
13	4.5	8.1	9.0	9.6	8.2	12.5	13.1	11.4	18.5	16.2	2.8
	4.5	9.2	10.4	11.1	8.6	12.1	13.0	11.5	20.5	18.0	2.9
14	4.7	9.1	10.8	11.5	8.7	12.4	14.0	11.8	20.7	18.4	3.1
	4.7	9.2	10.9	11.8	8.7	12.6	13.4	11.5	21.1	18.8	3.2
15	4.7	9.2	11.1	12.0	8.7	12.6	14.0	11.5	21.3	19.0	3.6
	4.9	9.2	11.2	12.1	8.7	12.5	14.0	11.5	21.6	19.4	3.9
16	5.0	9.3	11.4	12.3	8.7	12.9	14.4	11.5	21.6	19.7	4.1
	5.2	9.5	11.6	12.5	8.7	12.7	15.2	11.6	21.5	20.1	4.4
17	5.4	9.5	11.6	12.5	8.8	12.4	13.4	11.5	21.9	20.6	4.5
	5.5	9.5	11.7	12.6	8.8	12.6	13.9	11.5	22.2	20.9	4.6
18	5.6	9.6	11.9	12.8	8.8	12.5	15.2	11.5	22.3	21.1	4.7
	5.6	9.6	11.9	13.0	8.8	12.3	15.0	11.6	22.3	21.2	4.7
19	5.5	9.6	12.0	13.0	8.8	13.1	14.0	11.6	22.8	21.5	4.5
	5.4	9.7	12.1	13.1	8.9	12.6	14.3	11.6	22.4	21.5	4.4
20	5.4	9.6	12.1	13.1	8.8	12.3	14.0	11.6	22.9	22.8	4.6
	5.4	12.5	11.7	12.6	8.8	12.5	13.7	11.6	22.2	22.2	4.7
21	5.5	15.5	11.8	12.6	8.8	12.2	13.5	11.6	21.7	21.5	4.5
	5.3	16.8	12.0	12.8	8.8	12.2	13.5	11.6	22.0	21.9	4.4
22	5.5	17.5	12.1	13.0	8.9	12.2	14.1	11.6	22.1	22.0	4.5
	5.7	16.8	11.8	12.6	9.0	12.6	14.7	11.6	21.6	20.8	4.8
23	5.6	14.7	11.2	11.8	9.0	12.2	13.7	11.5	19.3	18.9	4.5
	5.4	13.5	10.9	11.2	9.0	12.1	13.6	11.5	18.1	17.7	4.2

HOURS	1 temp lucht zolder	2 temp kamer 1 onder	3 temp kamer 2	4 temp kamer 3	5 temp kamer 4	6 temp bedkamer	7 temp hall beneden	8 temp kelder	9 temp keuken	10 temp living	11 temp (buiten)
DAY 21											
0	5.3	12.9	10.7	10.9	9.0	12.0	13.6	11.5	18.1	16.9	4.1
	5.3	12.5	10.7	10.7	9.0	12.0	13.6	11.5	18.3	16.4	4.0
1	5.3	12.3	10.7	10.6	9.1	12.0	13.5	11.5	17.2	15.9	4.0
	5.1	12.2	10.7	10.6	9.1	12.0	13.5	11.5	16.8	15.5	3.6
2	4.7	12.2	10.6	10.3	9.1	12.2	13.7	11.5	16.7	15.2	2.9
	4.7	12.1	10.6	10.2	9.2	12.0	13.6	11.5	17.3	15.0	3.1
3	4.7	12.0	10.5	10.1	9.1	12.0	13.6	11.5	16.5	14.8	3.2
	4.5	11.9	10.5	10.0	9.2	11.9	13.5	11.5	16.0	14.6	2.8
4	4.3	11.9	10.3	9.9	9.1	11.9	13.5	11.5	15.8	14.5	2.6
	3.9	11.8	10.2	9.8	9.1	11.9	13.4	11.4	16.6	14.4	2.0
5	3.9	11.7	10.1	9.7	9.1	11.8	13.4	11.4	16.2	14.2	2.3
	3.7	11.6	10.0	9.6	9.0	11.8	13.3	11.5	15.5	14.1	1.9
6	3.3	11.5	9.9	9.5	9.0	11.8	13.3	11.4	15.2	14.0	1.3
	3.1	11.4	9.8	9.4	9.0	11.8	13.2	11.5	15.8	13.9	1.1
7	3.0	11.5	9.8	9.3	9.0	11.6	12.9	11.5	15.9	13.7	1.2
	3.4	11.4	9.8	9.3	9.1	11.0	12.6	11.5	14.7	13.1	1.1
8	3.1	11.3	9.8	9.2	9.0	10.7	11.9	11.5	14.4	12.7	0.9
	3.1	11.1	9.6	9.1	8.9	10.6	12.3	11.4	14.3	12.6	0.5
9	2.8	11.1	8.7	8.2	8.3	11.0	12.7	11.4	15.3	13.0	0.5
	2.3	11.0	8.5	7.9	8.0	11.2	13.5	11.4	19.6	13.9	0.9
10	2.8	10.7	8.7	7.8	7.9	12.4	13.3	11.4	21.8	14.7	1.9
	3.2	9.7	9.6	9.2	7.8	12.1	13.1	11.3	23.6	16.6	2.4
11	3.8	9.7	10.4	10.4	7.9	11.7	13.0	11.5	22.4	17.3	2.9
	3.5	9.2	10.6	11.0	7.6	11.5	13.0	11.3	25.8	19.6	2.5
12	3.3	9.1	10.9	11.4	7.6	11.4	12.7	11.3	23.9	20.9	2.2
	3.2	9.6	11.1	11.5	8.0	11.5	12.9	11.3	24.4	21.2	2.0
13	3.7	9.7	11.1	11.7	8.0	11.4	13.5	11.3	23.3	21.5	1.9
	3.9	9.7	11.2	11.8	8.1	11.6	13.2	11.4	22.4	21.6	1.9
14	4.0	9.9	11.3	12.0	8.2	11.5	13.5	11.5	22.3	21.4	2.0
	3.9	9.9	11.4	12.1	8.2	11.4	13.3	11.5	22.2	21.4	1.8
15	3.7	9.9	11.5	12.1	8.3	11.4	13.3	11.5	22.1	21.4	1.8
	3.7	9.9	11.0	11.5	8.3	11.4	13.3	11.5	21.1	19.9	1.8
16	4.2	10.0	10.6	10.9	8.4	11.4	13.3	11.5	19.7	18.5	2.2
	3.8	10.0	10.8	11.2	8.3	11.4	13.3	11.4	19.7	19.2	2.1
17	3.4	10.0	11.5	12.1	8.3	11.4	13.3	11.4	21.8	21.9	1.8
	3.2	10.0	11.6	12.1	8.2	11.6	14.0	11.4	22.0	22.2	1.8
18	3.5	10.1	11.1	11.5	8.4	11.6	14.0	11.5	21.2	20.3	2.0
	3.6	10.0	11.3	11.7	8.3	11.6	13.5	11.4	20.9	20.7	2.0
19	3.6	10.4	11.5	11.9	8.3	11.5	13.7	11.4	21.2	21.5	1.4
	3.6	12.4	10.9	11.1	8.4	11.5	13.4	11.4	19.5	19.4	1.2
20	3.2	11.9	10.6	10.6	8.4	11.5	13.3	11.4	19.2	18.3	1.2
	3.0	12.5	10.6	10.6	8.4	11.6	13.3	11.3	19.0	18.2	1.1
21	2.7	16.8	11.6	11.9	8.3	11.4	13.3	11.4	21.7	21.5	0.8
	2.5	17.7	11.7	12.1	8.2	11.4	13.5	11.4	22.0	22.4	0.7
22	2.5	17.6	11.6	12.0	8.3	11.5	13.5	11.4	22.0	22.1	0.7
	2.6	17.3	11.6	11.9	8.4	11.6	14.7	11.5	21.8	21.4	0.6
23	2.6	17.7	11.7	12.0	8.5	11.6	14.9	11.5	21.5	21.4	0.6
	2.5	17.9	11.6	12.0	8.5	11.7	15.3	11.5	21.3	21.4	0.6

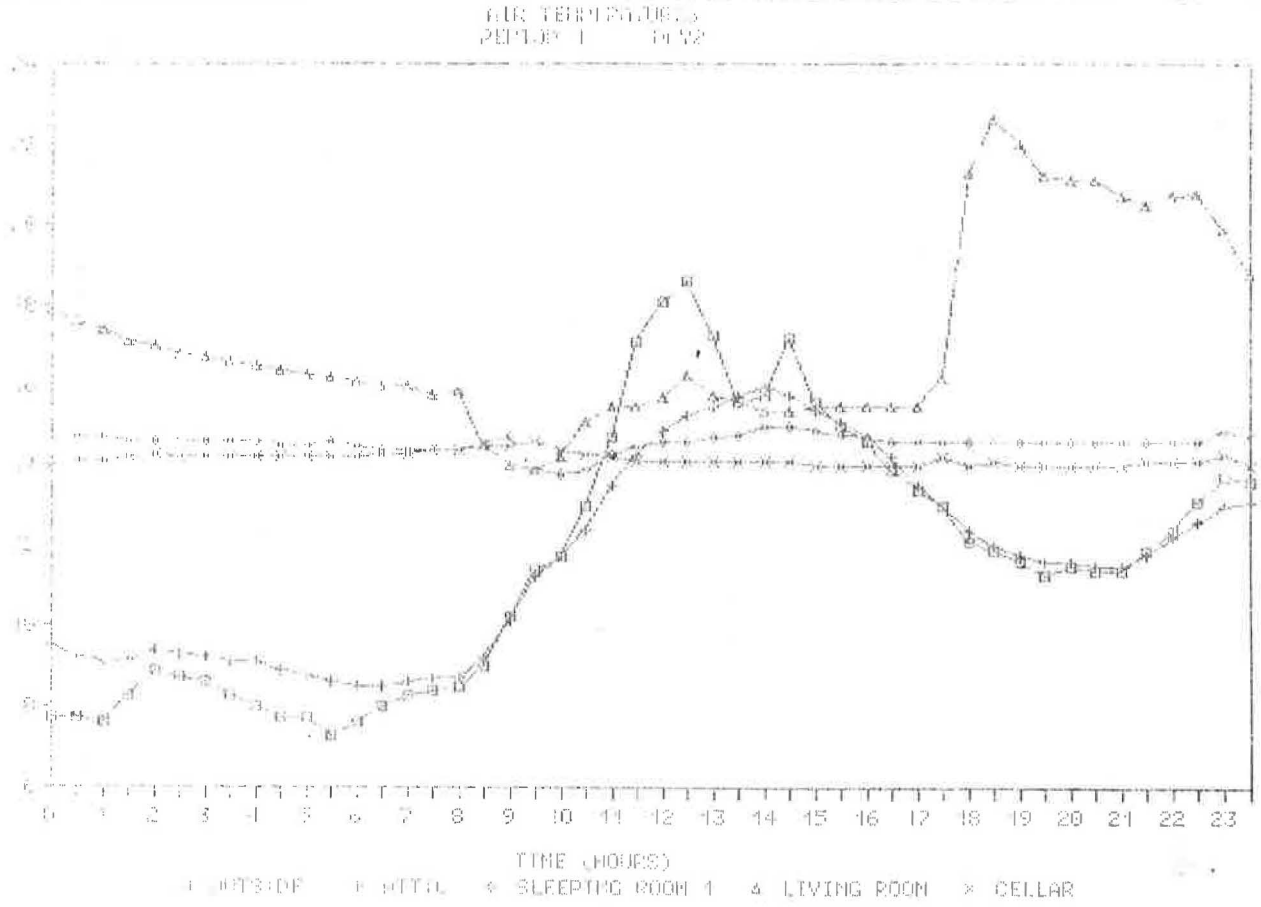
HOURS	3 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	7 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 22											
0	3.2	16.1	11.3	11.4	8.7	11.8	15.8	11.5	19.9	19.4	0.6
	3.3	14.5	11.0	10.8	8.7	11.6	14.7	11.5	19.4	18.0	0.6
1	3.4	13.7	10.8	10.7	8.7	11.7	14.4	11.5	18.4	17.1	0.7
	2.8	13.3	10.7	10.3	8.7	11.6	14.2	11.5	17.5	16.4	0.6
2	2.9	13.1	10.6	10.1	8.7	11.6	14.1	11.4	17.4	13.9	0.6
	2.9	12.9	10.5	9.9	8.7	11.6	14.0	11.4	17.8	15.6	0.7
3	3.3	12.7	10.3	9.7	8.7	11.6	13.9	11.3	17.1	15.3	0.7
	3.3	12.6	10.2	9.7	8.7	11.6	13.7	11.4	16.5	15.1	0.9
4	3.0	12.5	10.1	9.6	8.7	11.5	13.7	11.3	16.5	14.8	1.0
	3.4	12.4	10.0	9.5	8.7	11.5	13.7	11.3	17.1	14.7	0.9
5	3.0	12.3	10.0	9.4	8.7	11.5	13.6	11.3	16.5	14.6	0.7
	3.0	12.3	9.9	9.3	8.7	11.5	13.6	11.3	15.9	14.3	0.6
6	3.2	12.1	9.8	9.2	8.7	11.5	13.5	11.3	15.8	14.2	0.6
	3.1	12.0	9.7	9.1	8.7	11.5	13.5	11.3	16.4	14.1	0.7
	2.8	12.0	9.7	9.1	8.6	11.5	13.3	11.3	16.1	14.0	0.9
	2.9	11.8	9.6	8.9	8.6	11.4	13.3	11.3	15.4	13.8	1.0
8	2.8	11.7	9.5	8.8	8.6	12.4	12.8	11.3	15.7	13.9	1.1
	3.3	11.4	9.4	8.7	8.5	11.5	12.1	11.4	15.9	13.5	1.3
9	3.2	9.9	8.3	7.9	7.8	12.6	12.3	11.4	14.9	12.9	1.1
	3.1	9.8	8.6	8.0	7.6	11.2	12.5	11.3	15.2	13.9	1.1
10	2.8	10.3	10.3	9.3	7.2	11.3	12.9	11.3	19.1	18.3	1.4
	2.8	10.4	10.7	9.8	7.4	11.3	13.5	11.2	20.7	19.6	1.6
11	3.1	9.3	10.9	10.8	7.8	11.5	13.6	11.3	21.3	20.1	1.7
	3.2	9.0	11.0	11.1	7.9	11.3	13.1	11.3	21.9	20.6	1.9
12	3.4	8.8	10.6	10.6	8.0	11.3	13.0	11.3	20.4	19.2	2.1
	3.6	8.7	10.5	10.4	8.1	11.2	13.4	11.3	19.6	18.5	2.2
13	3.8	8.8	10.5	10.4	8.1	11.5	14.1	11.3	19.5	18.3	2.4
	3.8	9.4	10.1	9.9	8.1	11.3	13.3	11.3	18.6	17.2	2.7
14	4.1	9.6	9.9	9.5	8.1	11.2	13.2	11.3	17.4	16.1	2.9
	4.2	9.6	9.8	9.5	8.1	11.2	13.0	11.2	16.5	15.5	3.0
15	4.1	9.6	9.9	9.7	8.1	11.2	13.0	11.3	16.8	15.9	3.0
	3.8	9.6	10.9	11.1	8.0	11.2	13.3	11.3	20.7	19.7	3.0
16	4.0	9.8	11.2	11.6	8.1	11.2	14.7	11.4	21.5	20.5	2.9
	3.8	9.7	10.9	11.3	8.1	11.3	13.4	11.4	20.5	18.7	2.8
17	3.6	9.7	10.5	10.5	8.1	11.2	13.1	11.4	18.7	17.3	2.0
	3.6	9.7	10.2	10.1	8.2	11.3	13.1	11.4	17.8	16.4	2.2
18	3.6	9.7	10.0	9.8	8.2	11.2	13.0	11.3	17.7	15.7	2.4
	3.6	9.7	10.6	10.7	8.1	11.2	12.9	11.3	19.7	17.4	2.6
19	3.7	9.7	11.3	11.7	8.1	11.2	13.2	11.3	21.4	19.6	2.6
	3.7	9.7	11.5	11.9	8.1	11.2	13.2	11.3	21.6	20.3	2.6
20	3.8	9.7	11.6	12.1	8.1	11.2	13.0	11.3	21.8	20.7	2.7
	4.0	9.8	11.8	12.3	8.2	11.6	13.4	11.3	21.1	20.7	3.0
21	4.1	14.2	11.7	12.2	8.1	11.4	13.4	11.4	21.2	20.9	3.1
	4.6	16.5	12.0	12.5	8.2	11.7	15.2	11.7	20.9	21.0	3.5
22	4.6	15.4	11.4	11.7	8.1	11.7	13.6	11.3	19.7	19.6	3.7
	5.0	13.8	10.8	10.9	8.2	11.4	13.2	11.3	18.8	18.0	4.2
23	5.4	12.9	10.6	10.4	8.2	11.3	13.1	11.2	17.5	16.8	4.6
	5.7	12.4	10.5	10.2	8.2	11.3	13.0	11.2	16.8	16.1	4.7

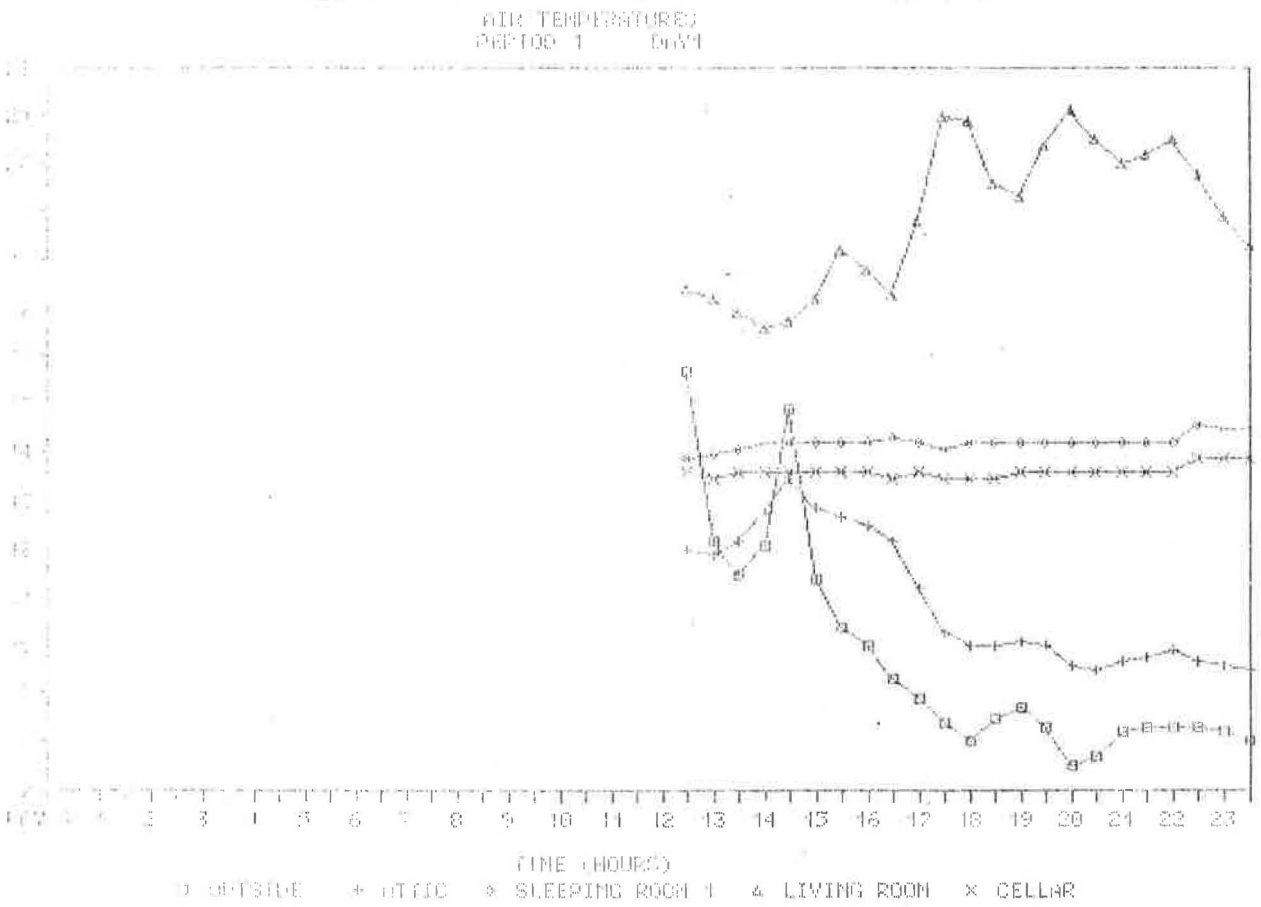
HOURS	0 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 23											
0	5.7	12.0	10.4	10.1	8.4	11.3	13.1	11.3	16.6	15.6	4.6
	5.7	11.9	10.4	10.0	8.4	11.3	13.1	11.3	17.2	15.2	4.7
1	5.9	11.7	10.2	9.8	8.4	11.2	13.0	11.3	16.7	14.9	5.0
	6.0	11.6	10.1	9.7	8.4	11.2	13.0	11.3	16.0	14.6	5.1
2	6.1	11.6	10.0	9.6	8.5	11.2	13.0	11.3	15.7	14.5	5.4
	6.4	11.6	10.0	9.6	8.6	11.6	13.0	11.3	16.2	14.3	5.7
3	5.9	11.8	10.1	9.6	8.6	11.6	12.9	11.2	16.4	14.1	4.5
	5.2	11.6	10.1	9.6	8.6	11.4	12.8	11.2	15.4	13.9	4.0
4	5.2	11.7	10.0	9.5	8.6	11.3	12.7	11.1	15.1	13.7	4.1
	5.4	11.6	10.0	9.4	8.7	11.3	12.7	11.1	15.0	13.6	4.2
5	5.1	11.5	10.0	9.4	8.6	11.2	12.7	11.0	15.7	13.5	3.9
	4.6	11.4	9.9	9.2	8.6	11.2	12.5	11.0	15.3	13.4	3.3
6	4.5	11.5	9.8	9.2	8.6	11.2	12.5	11.0	14.7	13.2	3.2
	4.3	11.4	9.8	9.1	8.6	11.2	12.5	10.9	14.4	13.1	3.0
7	4.1	11.3	9.7	9.1	8.6	11.2	12.4	10.9	14.6	13.0	2.8
	4.1	11.3	9.6	9.0	8.6	11.2	12.3	10.9	15.3	13.0	2.8
8	3.6	11.2	9.5	8.8	8.5	12.0	12.5	10.7	15.2	12.8	2.6
	3.4	10.9	9.4	8.6	8.2	11.4	12.3	10.9	13.5	12.2	2.5
9	3.4	8.9	8.6	7.4	7.0	11.1	12.4	10.7	12.4	12.1	2.6
	3.6	8.6	8.7	7.4	6.8	11.1	12.1	10.7	10.1	11.3	2.7
10	3.9	8.4	8.6	7.2	6.7	8.3	11.1	10.6	11.8	11.0	3.2
	4.2	9.3	9.2	8.2	7.4	10.0	11.6	10.7	13.1	12.6	3.7
11	4.4	9.7	10.5	10.3	7.8	14.1	15.4	10.7	17.4	17.6	4.3
	4.2	9.8	10.7	10.8	7.8	18.1	13.5	10.7	18.8	18.9	3.8
12	4.4	9.7	11.1	11.2	8.6	16.3	14.1	10.8	19.8	19.6	4.6
	4.4	8.7	11.2	11.5	8.1	14.4	12.9	10.7	20.9	20.7	4.0
13	4.6	9.0	11.4	11.8	8.2	13.4	14.6	10.7	20.7	20.3	4.2
	4.7	9.7	11.1	11.4	8.2	12.7	12.9	10.8	19.5	18.9	4.2
14	4.8	9.8	10.5	10.6	8.3	12.3	12.9	10.7	18.2	17.1	4.0
	4.2	10.0	10.4	10.2	8.4	12.1	14.5	10.9	16.6	15.6	2.9
15	3.5	9.8	11.1	11.4	8.2	11.9	13.1	10.9	19.9	19.5	2.3
	3.8	9.7	11.5	12.1	8.3	11.8	12.6	10.9	21.0	21.1	2.6
16	4.1	9.7	11.6	12.2	8.4	12.0	13.1	10.9	21.4	21.6	2.6
	3.9	9.8	11.7	12.3	8.3	11.8	13.5	11.0	21.7	21.7	2.5
17	3.8	9.9	11.8	12.3	8.3	11.9	14.4	11.1	21.6	21.7	2.6
18											
19	3.1	9.8	11.8	12.3	8.2	11.7	13.2	10.9	22.0	21.0	2.0
	3.2	9.8	11.9	12.5	8.2	11.7	13.2	11.0	22.0	21.2	2.3
20	3.1	9.8	12.0	12.5	8.3	11.7	13.2	10.9	22.0	21.5	2.0
	3.1	14.7	12.2	12.6	8.5	12.1	16.1	11.1	21.8	20.9	1.3
21	2.9	17.5	12.3	12.7	8.4	11.9	16.1	11.0	21.9	20.9	1.3
	2.7	18.2	12.2	12.7	8.4	11.8	14.9	11.0	22.1	21.1	1.5
22	2.8	18.5	12.1	12.6	8.3	11.8	14.7	11.0	22.2	22.1	1.8
	3.1	17.0	11.6	12.0	8.3	11.9	14.3	11.1	21.3	20.6	2.0
23	3.2	14.9	11.1	11.2	8.4	11.6	13.8	10.9	19.6	18.6	2.0
	3.2	13.8	10.8	10.6	8.5	11.6	13.7	11.0	18.0	17.3	1.8

HOURS	3 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	11 temp (buiten)
DAY 24											
0	3.1	13.3	10.6	10.4	8.5	11.6	13.6	10.9	17.3	16.4	1.7
	2.9	12.8	10.6	10.1	8.6	11.6	13.6	10.9	17.4	15.8	1.3
1	2.8	12.6	10.5	9.9	8.5	11.5	13.4	10.9	17.6	15.4	1.2
	2.7	12.5	10.3	9.7	8.5	11.5	13.3	10.9	16.5	15.1	1.3
2	2.8	12.3	10.2	9.6	8.5	11.6	13.2	10.9	16.2	14.8	1.6
	2.8	12.0	10.0	9.5	8.5	11.5	13.1	10.9	16.3	14.6	1.6
3	3.1	11.9	9.8	9.3	8.5	11.5	13.1	11.0	16.8	14.5	1.5
	2.9	11.8	9.7	9.2	8.5	11.4	13.1	11.0	16.1	14.4	1.5
4	2.7	11.7	9.7	9.2	8.5	11.4	13.0	10.9	15.6	14.2	1.4
	2.8	11.6	9.6	9.1	8.5	11.4	13.0	10.9	15.6	14.1	1.6
5	3.0	11.6	9.5	9.0	8.4	11.4	12.9	10.9	16.2	14.0	1.9
	2.9	11.6	9.5	9.0	8.5	11.4	12.8	10.9	15.7	13.8	1.9
6	2.9	11.4	9.4	8.8	8.4	11.3	12.8	10.9	15.1	13.7	1.8
	2.7	11.3	9.4	8.7	8.4	11.3	12.7	10.8	15.0	13.5	1.6
7	2.7	11.3	9.3	8.7	8.4	11.3	12.6	10.9	15.4	13.5	1.6
	2.6	11.2	9.2	8.6	8.3	11.2	12.6	10.8	15.5	13.3	1.5
8	2.9	11.2	9.2	8.6	8.4	11.3	12.6	10.8	14.6	13.2	1.9
	3.3	11.3	9.2	8.5	8.3	11.2	12.5	10.8	14.5	13.1	2.2
9	3.9	11.4	9.3	8.6	8.5	12.7	11.5	10.9	14.9	12.5	2.4
	3.6	11.3	8.4	8.0	7.8	12.2	11.8	10.8	14.9	12.5	2.3
10	3.5	11.2	8.3	7.7	7.5	10.0	11.8	10.7	14.2	12.7	2.7
	3.9	10.8	8.3	7.6	7.4	10.4	11.8	10.8	14.3	12.9	3.8
11	4.4	9.8	8.9	8.9	7.1	13.3	12.6	10.7	17.6	16.7	4.2
	4.6	10.4	9.2	9.7	7.1	12.8	13.2	10.7	20.0	19.3	4.6
12	4.9	10.7	9.4	10.1	7.2	12.7	13.6	10.7	21.4	20.3	5.3
	5.0	10.7	9.6	9.9	7.0	12.5	14.5	10.6	27.9	21.5	6.2
13	5.4	10.3	9.6	10.1	7.0	11.8	12.7	10.6	27.7	22.2	5.9
	5.7	10.4	10.2	10.5	7.5	11.6	12.3	10.7	25.1	21.8	5.7
14	5.8	10.5	10.5	10.8	7.9	11.6	12.5	10.7	22.1	20.7	5.7
	5.9	10.5	11.1	11.5	8.0	12.5	14.2	10.8	22.5	21.7	5.6
15	5.8	10.5	11.2	11.7	8.1	11.7	13.4	10.9	22.8	22.1	5.6
	5.9	10.5	11.3	11.8	8.1	11.6	13.4	10.9	22.7	22.2	5.5
16	5.9	10.5	11.3	11.8	8.2	11.6	13.5	10.9	22.4	22.1	5.5
	5.9	10.7	11.5	11.9	8.2	11.5	13.8	11.0	21.8	21.9	5.2
17	5.7	10.6	11.3	11.7	8.2	11.5	13.4	11.0	21.1	21.6	5.1
	6.1	10.8	11.5	11.9	8.4	11.5	14.2	11.0	21.0	21.5	5.3
18	6.1	10.7	11.6	12.0	8.4	12.2	15.2	11.0	21.7	21.8	5.4
	6.1	10.7	11.6	12.0	8.4	11.9	13.7	10.9	22.0	21.9	5.5
19	6.1	11.0	11.6	12.0	8.4	11.7	13.5	11.0	21.8	22.0	5.6
	6.5	14.7	11.6	11.9	8.5	11.7	13.6	11.0	21.3	21.5	5.9
20	6.5	16.1	11.8	12.1	8.5	11.6	13.7	11.0	21.4	21.7	5.9
	6.5	15.7	11.6	11.8	8.6	11.6	13.6	11.0	20.8	20.6	5.7
21	6.5	14.8	11.3	11.4	8.6	11.5	13.4	11.0	19.7	19.6	5.8
	6.5	17.6	12.1	12.4	8.6	11.4	13.4	10.9	21.0	21.9	5.9
22	6.6	17.8	12.1	12.4	8.8	11.7	14.4	11.0	21.0	21.9	3.9
	6.5	17.0	11.9	12.1	11.2	15.0	14.2	11.0	20.7	20.9	5.7
23	6.7	18.0	12.2	12.4	12.9	18.7	14.9	11.1	21.1	21.1	5.7
	6.4	18.5	12.4	12.5	13.8	16.8	16.1	11.2	21.2	21.4	5.4

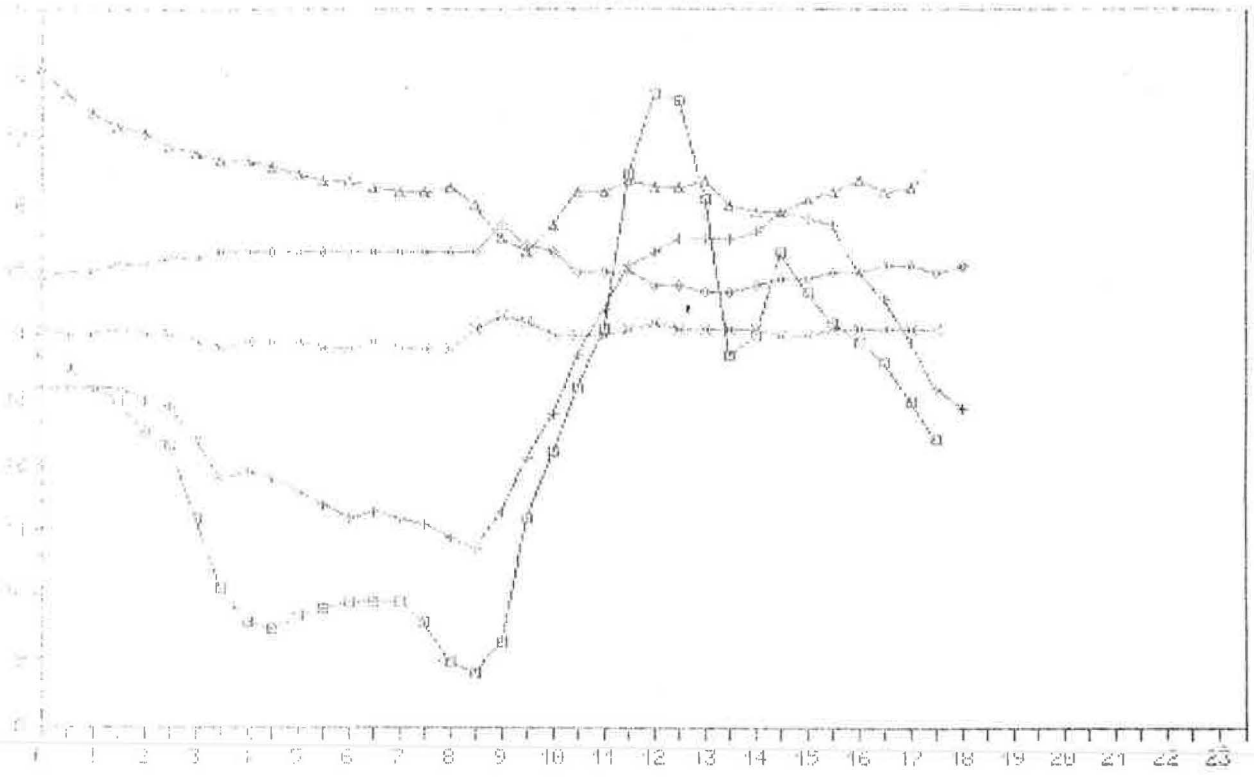
HOURS	1 temp lucht zolder	2 temp kamer 1 onder	3 temp kamer 2	4 temp kamer 3	5 temp kamer 4	6 temp badkamer	7 temp hall beneden	8 temp kelder	9 temp keuken	10 temp living	11 temp (buiten)
DAY 25											
0	6.1	17.8	12.1	12.2	11.5	14.8	14.2	11.0	20.9	21.2	4.9
	6.1	16.8	11.9	11.9	10.7	13.9	14.6	11.0	20.1	19.6	4.5
1	5.8	15.4	11.7	11.5	10.4	13.3	14.5	11.0	18.6	18.3	4.1
	5.6	14.7	11.5	11.2	10.3	13.0	14.4	11.0	18.0	17.5	4.0
2	5.7	14.4	11.4	11.1	10.2	12.8	14.2	11.0	17.9	16.9	4.1
	5.9	14.1	11.4	11.0	10.1	12.6	14.2	11.0	18.5	16.5	4.6
3	6.4	14.0	11.4	10.8	10.1	12.5	14.0	11.0	18.3	16.2	5.2
	6.8	13.9	11.4	10.7	10.1	12.6	14.0	11.0	18.0	16.0	5.6
4	7.1	13.7	11.4	10.6	10.1	12.4	13.9	11.0	17.1	15.7	6.0
	7.5	13.6	11.3	10.6	10.0	12.4	13.9	11.0	16.7	15.5	6.5
5	8.0	13.6	11.2	10.6	10.1	12.3	13.8	11.0	16.7	15.3	7.2
	8.5	13.5	11.2	10.6	10.1	12.3	13.8	11.1	17.4	15.2	7.7
6	8.9	13.5	11.2	10.7	10.1	12.2	13.7	11.1	17.5	15.1	8.1
	9.0	13.4	11.2	10.6	10.1	12.2	13.8	11.1	16.9	15.0	8.1
7	9.0	13.4	11.2	10.6	10.1	12.2	13.7	11.1	16.3	14.8	8.1
	9.1	13.4	11.2	10.7	10.2	12.2	13.7	11.1	16.0	14.7	8.2
8	9.0	13.3	11.2	10.7	10.2	12.2	13.7	11.1	16.3	14.6	8.0
	8.8	13.3	11.2	10.7	10.3	12.3	13.6	11.2	16.9	14.6	7.9
9	8.6	13.3	11.2	10.6	10.3	12.2	13.4	11.3	17.6	14.9	7.6
	8.6	12.8	10.9	10.2	10.0	13.8	13.8	11.1	17.1	14.5	7.8
10	8.6	12.3	10.9	10.1	10.0	11.9	13.2	11.2	17.0	13.9	7.9
	8.5	12.2	11.0	10.1	10.0	10.8	13.3	11.2	22.3	14.8	7.9
11	8.5	11.8	10.9	9.9	9.8	10.7	13.3	11.1	23.2	15.4	8.0
	8.6	11.2	10.9	9.9	9.3	11.6	13.4	11.2	20.0	14.9	8.4
12	8.6	11.7	11.0	10.2	10.0	11.8	13.5	11.1	17.8	14.8	8.5
	8.5	12.1	12.2	11.9	10.1	12.5	15.0	11.1	20.4	19.2	8.5
13	8.2	12.0	12.6	12.7	10.0	11.9	13.5	11.1	22.1	21.4	8.2
	8.3	12.1	12.8	13.0	10.1	12.4	14.5	11.1	22.4	21.8	8.1
14	8.4	12.2	12.5	12.5	10.1	12.1	14.3	11.1	21.4	20.3	8.0
	8.7	12.6	12.2	12.1	10.4	12.1	16.7	11.2	19.3	18.0	7.9
15	8.4	12.5	12.0	11.7	10.3	13.1	15.6	11.2	17.9	16.8	7.6
	8.1	12.3	12.8	12.8	10.3	13.8	16.5	11.2	20.6	19.8	7.3
16	7.8	12.3	13.2	13.4	10.2	13.8	16.1	11.2	22.5	21.8	7.1
	7.5	12.2	12.8	13.1	10.2	12.5	14.6	11.1	21.8	20.9	6.5
17	7.4	12.2	12.3	12.4	10.2	12.3	14.1	11.1	20.3	19.0	6.2
	7.6	12.3	12.2	12.0	10.4	12.3	15.3	11.9	19.0	17.9	6.1
18	7.4	12.3	12.2	12.0	10.4	12.3	14.8	12.5	18.6	18.8	6.0
	7.2	12.2	12.7	12.8	10.3	12.3	14.6	11.4	20.5	20.3	5.8
19	7.1	12.2	13.3	13.6	10.2	12.5	15.6	11.3	22.6	22.6	5.7
	7.1	12.2	13.3	13.6	10.2	12.6	15.4	11.3	22.6	22.6	5.7
20	7.2	12.1	13.1	13.4	10.2	12.4	14.8	11.3	22.2	22.1	5.8
	7.3	12.1	13.1	13.3	10.2	12.3	14.6	11.2	21.9	22.0	6.2
21	7.9	15.4	13.0	13.2	10.2	12.3	14.2	11.2	21.2	21.7	7.2
	8.8	17.1	13.2	13.4	10.3	12.3	15.2	11.2	21.4	21.9	8.2
22	10.0	16.5	13.2	13.2	10.6	12.6	17.7	11.4	20.6	19.9	9.3
	10.2	15.8	12.9	12.9	10.6	12.9	17.1	11.4	20.1	19.1	9.5
23	10.0	17.7	13.2	13.4	10.5	12.8	15.5	11.5	20.7	20.6	9.4
	8.8	16.6	13.0	12.9	10.6	12.5	14.7	11.3	19.2	19.0	7.4

HOURS	0 temp lucht zolder	1 temp kamer 1 onder	2 temp kamer 2	3 temp kamer 3	4 temp kamer 4	5 temp badkamer	6 temp hall beneden	7 temp kelder	8 temp keuken	9 temp living	10 temp (buiten)
DAY 26											
0	7.1	15.7	12.7	12.6	10.7	12.5	14.5	11.2	18.5	17.9	5.7
	7.0	15.2	12.6	12.3	10.6	12.3	14.4	11.1	18.8	17.1	5.9
1	7.1	14.9	12.6	12.1	10.7	12.4	14.3	11.1	18.5	16.7	6.0
	6.9	14.6	12.6	12.0	10.7	12.4	14.2	11.1	17.4	16.2	5.7
2	6.6	14.5	12.5	11.8	10.7	12.3	14.0	10.9	17.1	15.9	5.5
	6.4	14.3	12.4	11.6	10.6	12.3	14.0	10.9	17.3	15.7	5.2
3	6.2	14.2	12.3	11.6	10.6	12.3	13.9	10.9	17.8	15.6	4.9
	5.8	14.2	12.3	11.5	10.5	12.2	13.9	10.8	17.1	15.4	4.5
4	5.3	14.1	12.2	11.4	10.5	12.2	13.7	10.8	16.6	15.2	3.9
	5.0	14.0	12.2	11.3	10.5	12.4	13.7	10.7	16.4	15.1	3.5
5	4.1	13.9	12.0	11.2	10.4	12.2	13.6	10.7	17.0	15.0	2.8
	4.2	13.7	12.0	11.1	10.3	12.2	13.6	10.7	17.0	14.8	2.9
6	4.2	13.7	11.9	11.0	10.2	12.2	13.5	10.7	16.2	14.7	2.8
	3.7	13.6	11.7	10.8	10.2	12.1	13.4	10.6	15.9	14.5	2.3
7	4.1	13.5	11.7	10.7	10.1	12.1	13.3	10.6	15.9	14.3	2.9
	3.9	13.4	11.5	10.6	10.1	12.0	13.2	10.6	16.6	14.3	3.0
8	4.2	13.3	11.5	10.6	10.0	12.1	13.2	10.6	16.1	14.2	3.2
	4.5	13.3	11.5	10.5	10.0	12.2	12.0	10.7	15.6	13.3	3.3
9	4.4	11.2	11.5	9.3	7.8	12.5	13.6	10.6	17.5	16.1	3.3
	4.1	10.6	12.6	10.2	7.8	12.1	13.6	10.5	21.0	20.1	3.0
10	3.6	10.0	12.4	9.9	6.9	9.1	14.3	10.5	21.8	20.7	2.1
	3.1	10.6	12.1	11.0	6.8	9.7	13.8	10.6	20.0	18.8	1.5
11	3.0	10.4	11.6	10.4	6.6	10.9	13.7	10.6	18.3	17.2	1.7
	3.1	11.5	11.7	10.4	6.4	11.8	13.5	10.7	17.8	16.7	1.7
12	3.0	11.4	12.4	11.7	6.2	11.6	15.1	10.7	21.1	20.2	1.7
	2.6	11.3	12.5	12.0	6.0	11.5	14.1	10.7	22.5	21.4	1.3
13	2.0	11.2	12.6	12.1	5.7	11.6	13.9	10.8	22.9	21.9	0.5
	1.5	11.1	12.5	12.1	5.9	11.4	13.0	10.8	22.7	22.0	0.3
14	2.3	11.1	12.4	12.0	7.0	11.4	13.2	11.1	22.1	21.7	1.2
	2.3	11.1	11.9	11.1	8.7	11.7	13.4	11.4	20.2	19.9	0.8


AIR TEMPERATURES
PERIOD 1 DAY2
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
TIME (HOURS)
○ OUTSIDE + ATTIC ◇ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR


AIR TEMPERATURES
PERIOD 1 DAY1
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
TIME (HOURS)
○ OUTSIDE + ATTIC ◇ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR

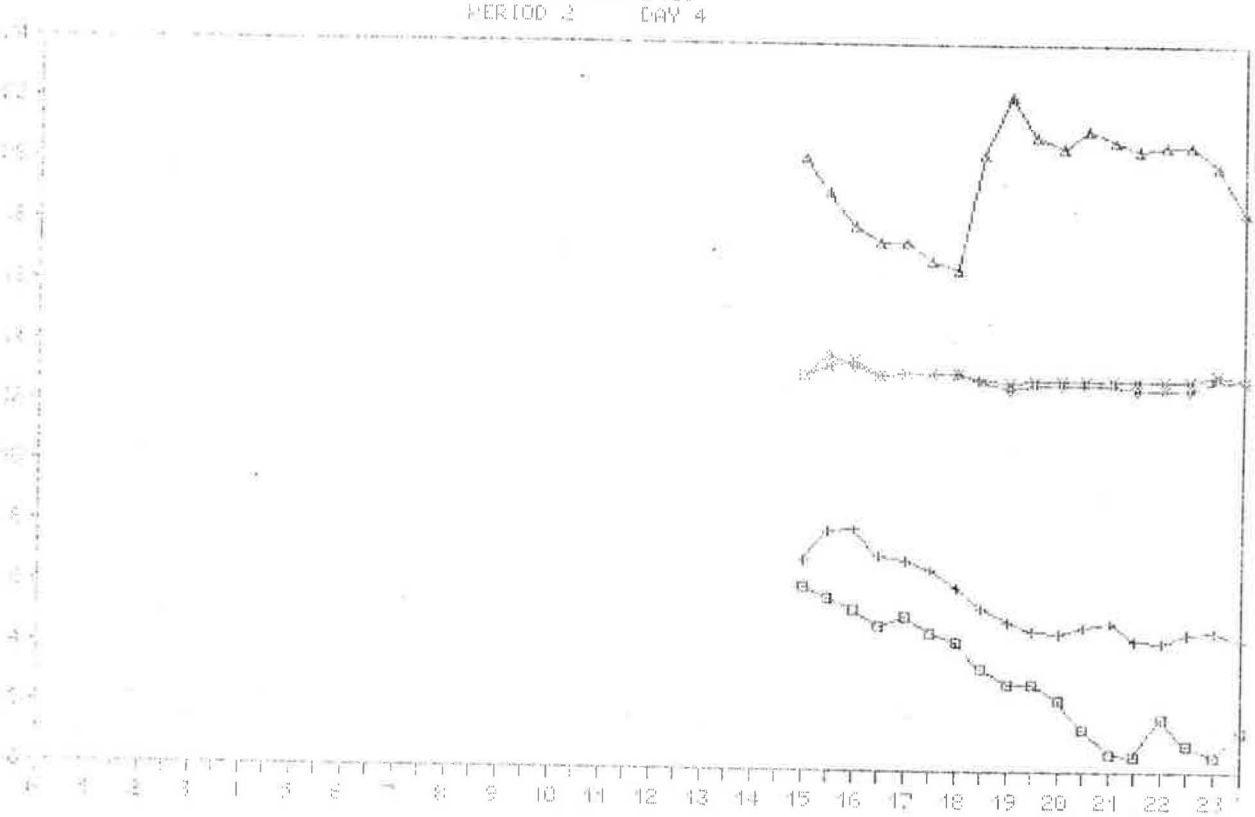
AIR TEMPERATURES
PERIOD 1 DAY 3



TIME (HOURS)

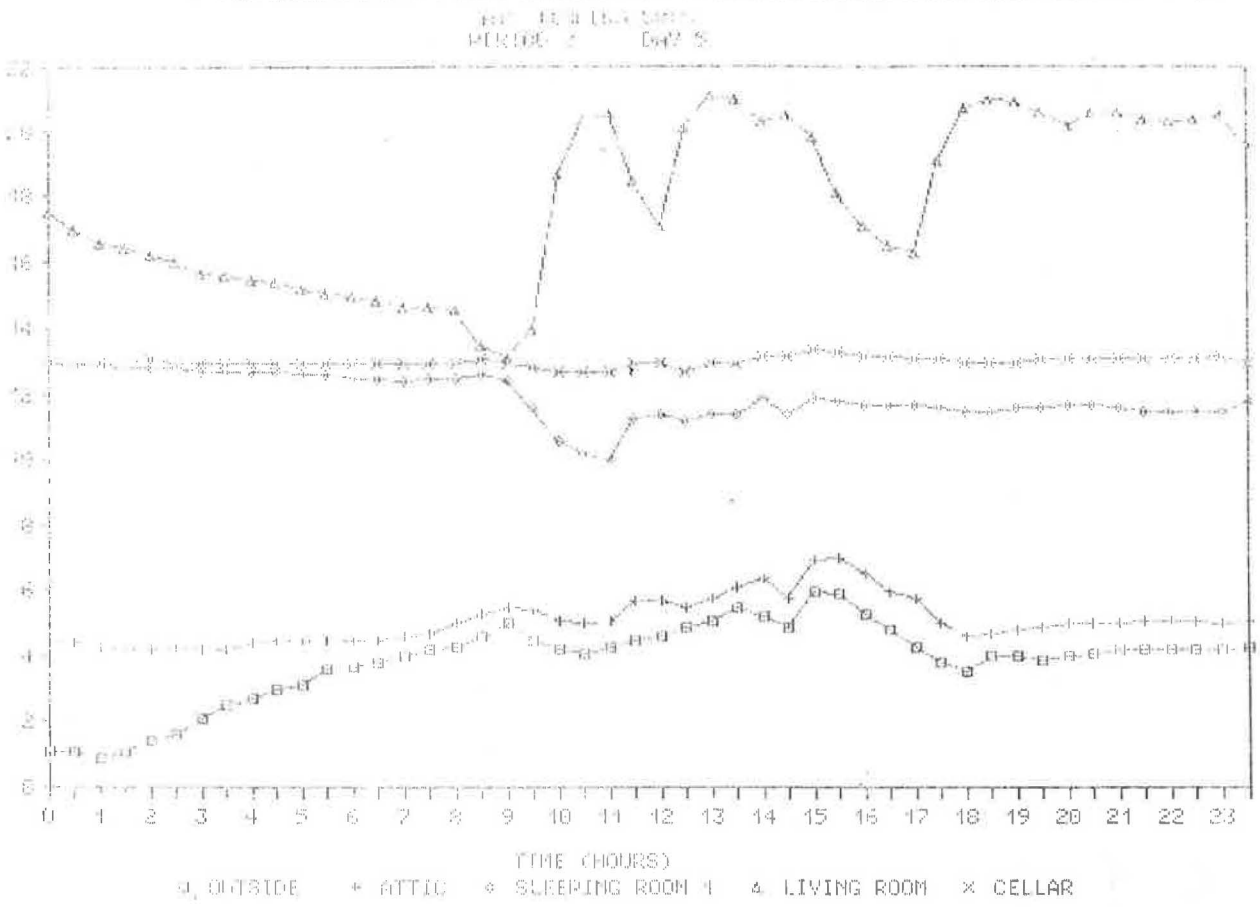
□ OUTSIDE + ATTIC ○ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR

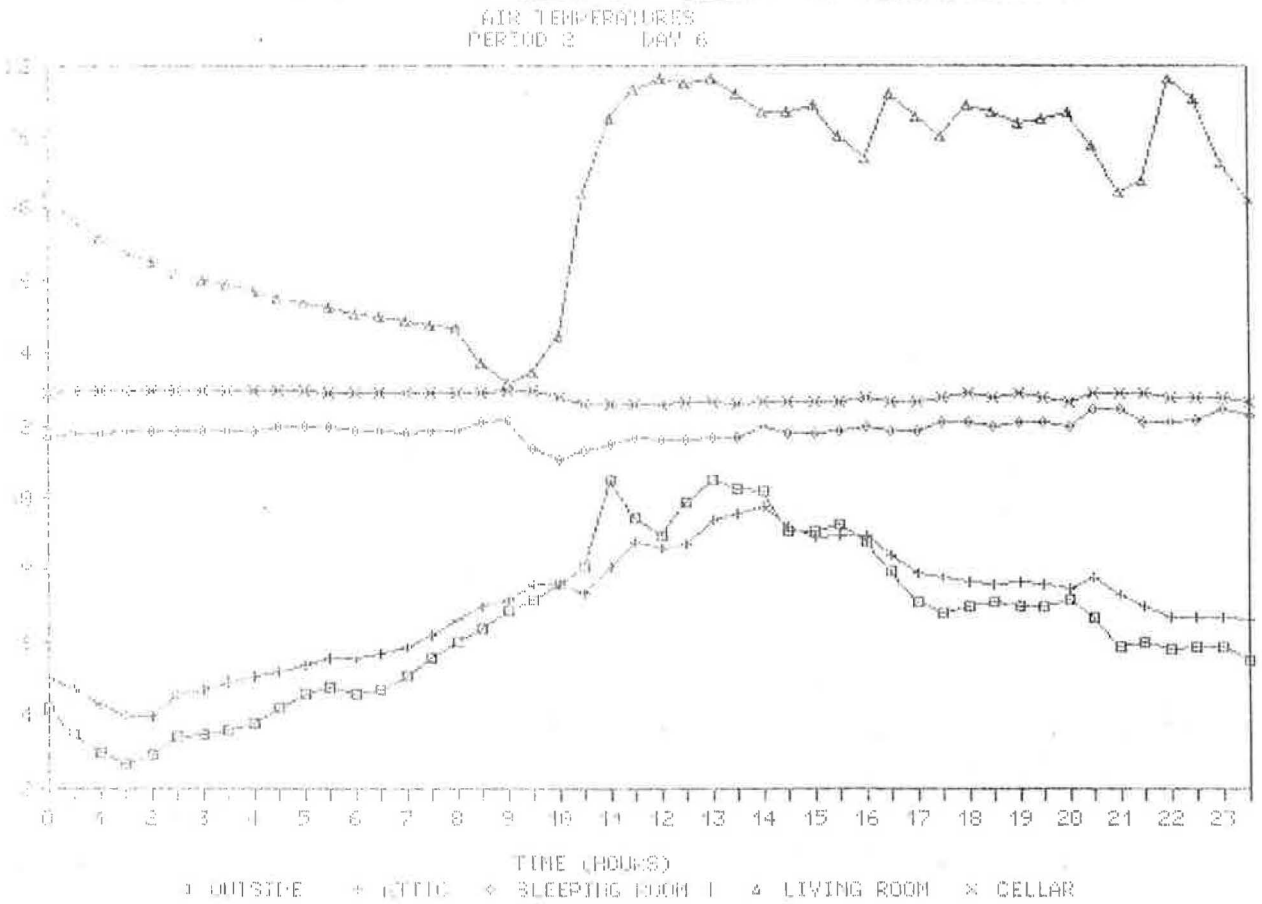
AIR TEMPERATURES
PERIOD 2 DAY 4



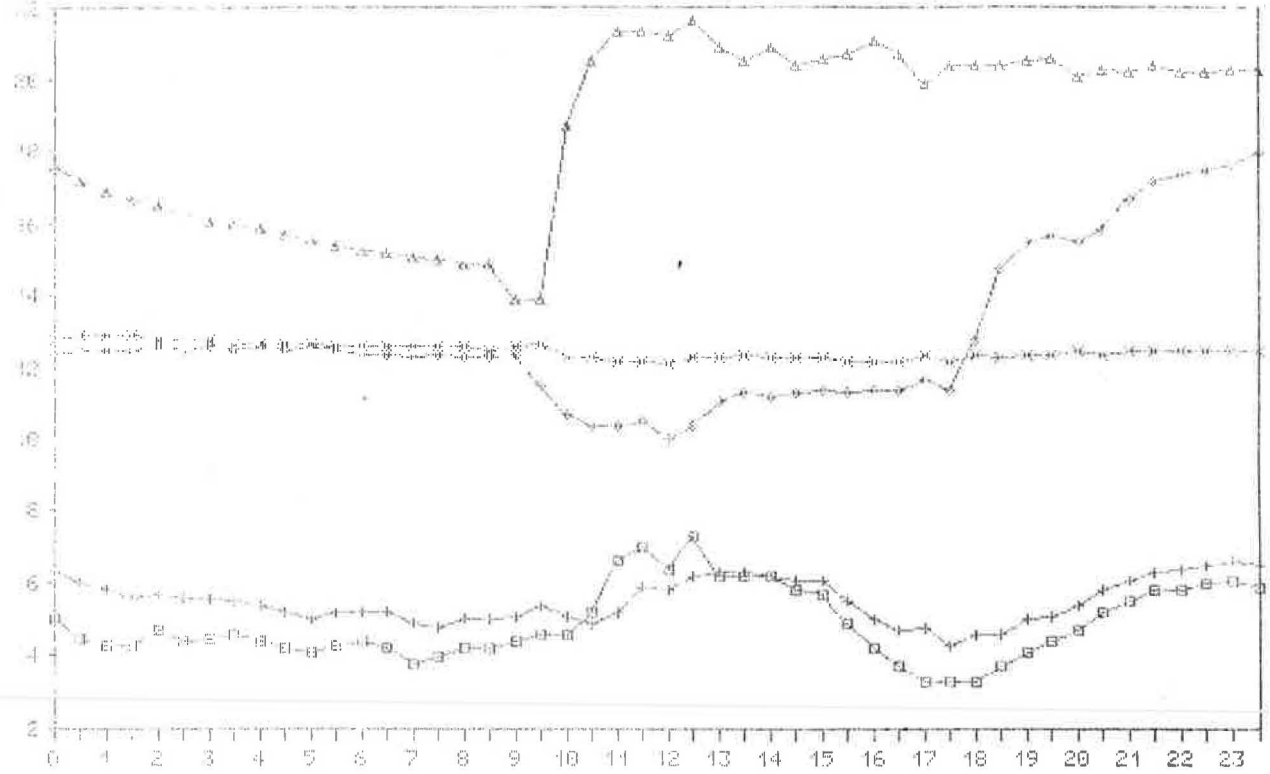
TIME (HOURS)

□ OUTSIDE + ATTIC ○ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR


PERIOD 2 DAY 5
TIME (HOURS)
□ OUTSIDE + ATTIC ◇ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR


AIR TEMPERATURES
PERIOD 2 DAY 6
TIME (HOURS)
□ OUTSIDE + ATTIC ◇ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR

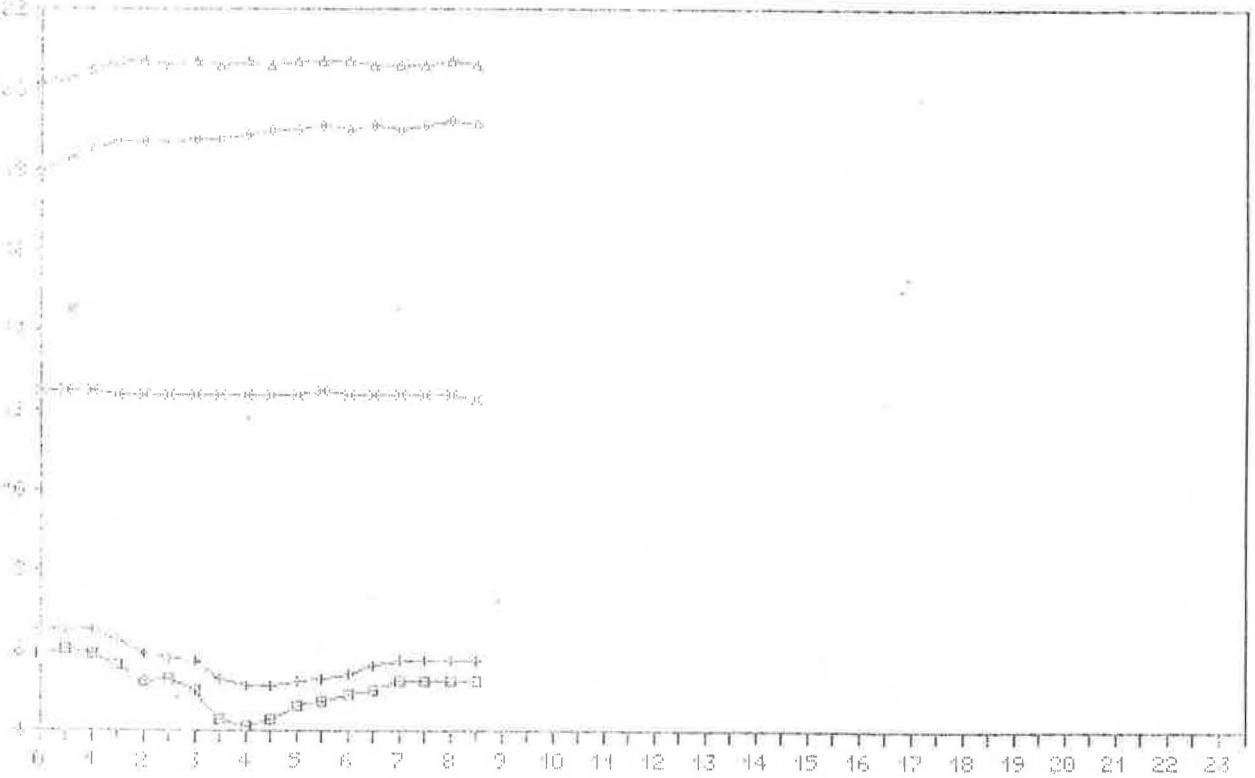
AIR TEMPERATURES
PERIOD 2 DAY 7



TIME (HOURS)

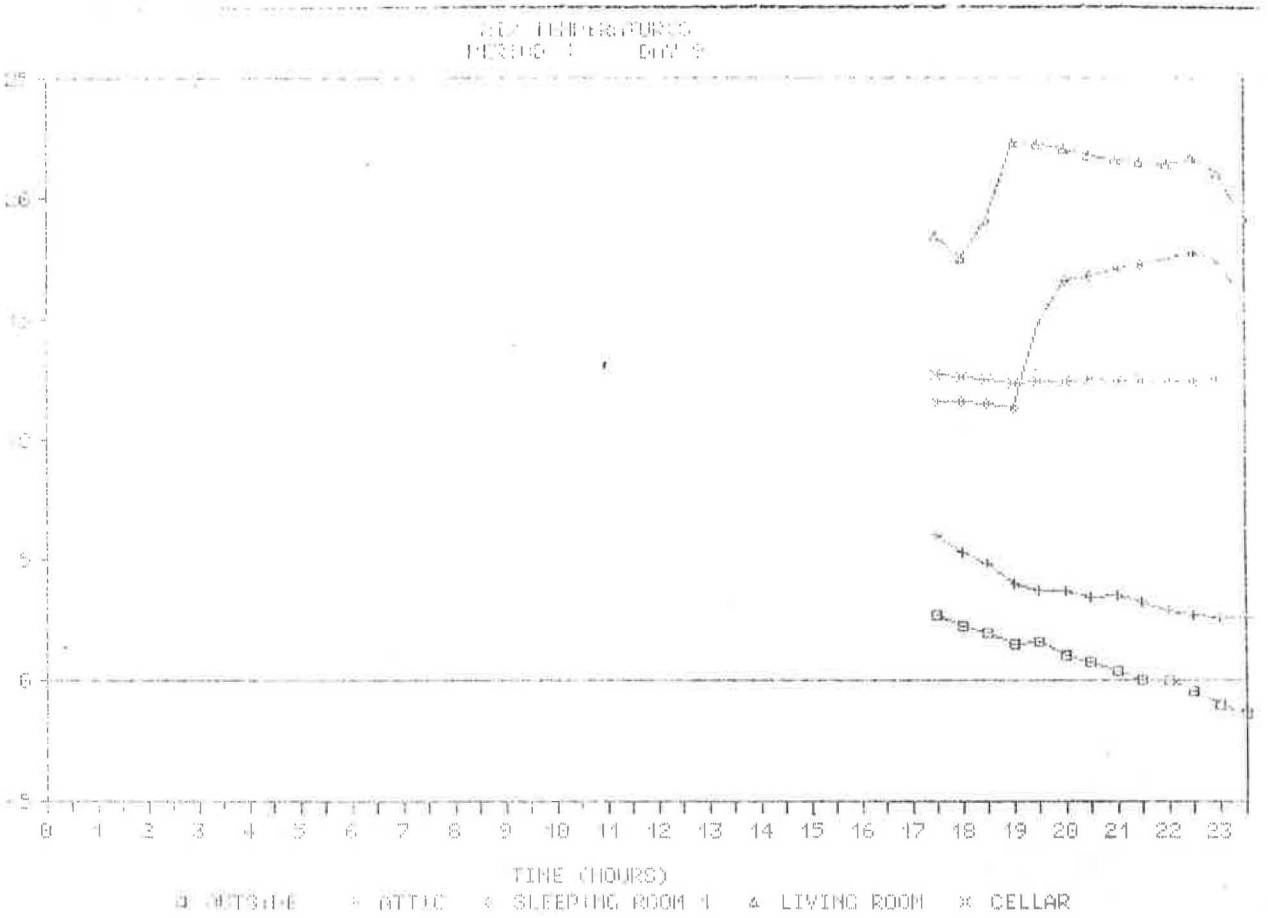
□ OUTSIDE + ATTIC ◇ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR

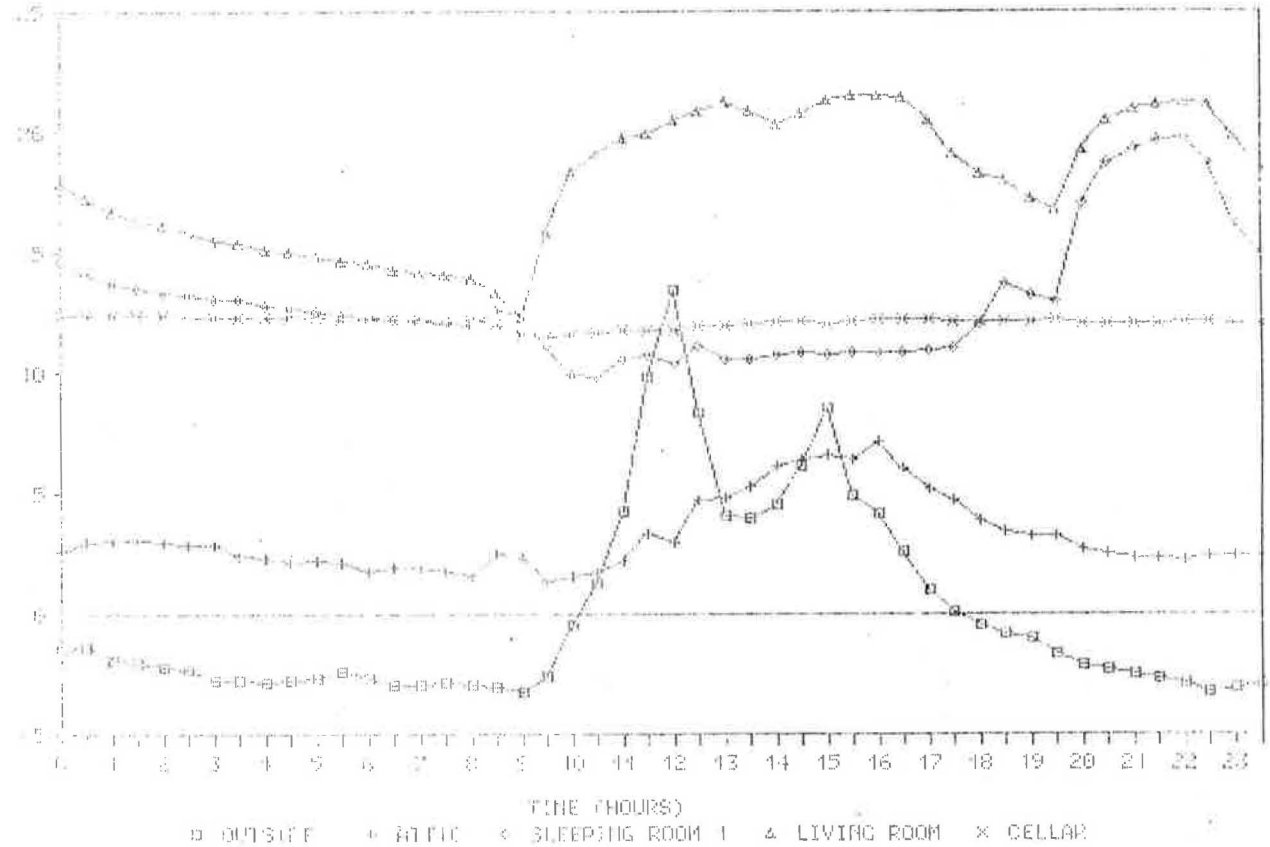
AIR TEMPERATURES
PERIOD 2 DAY 8

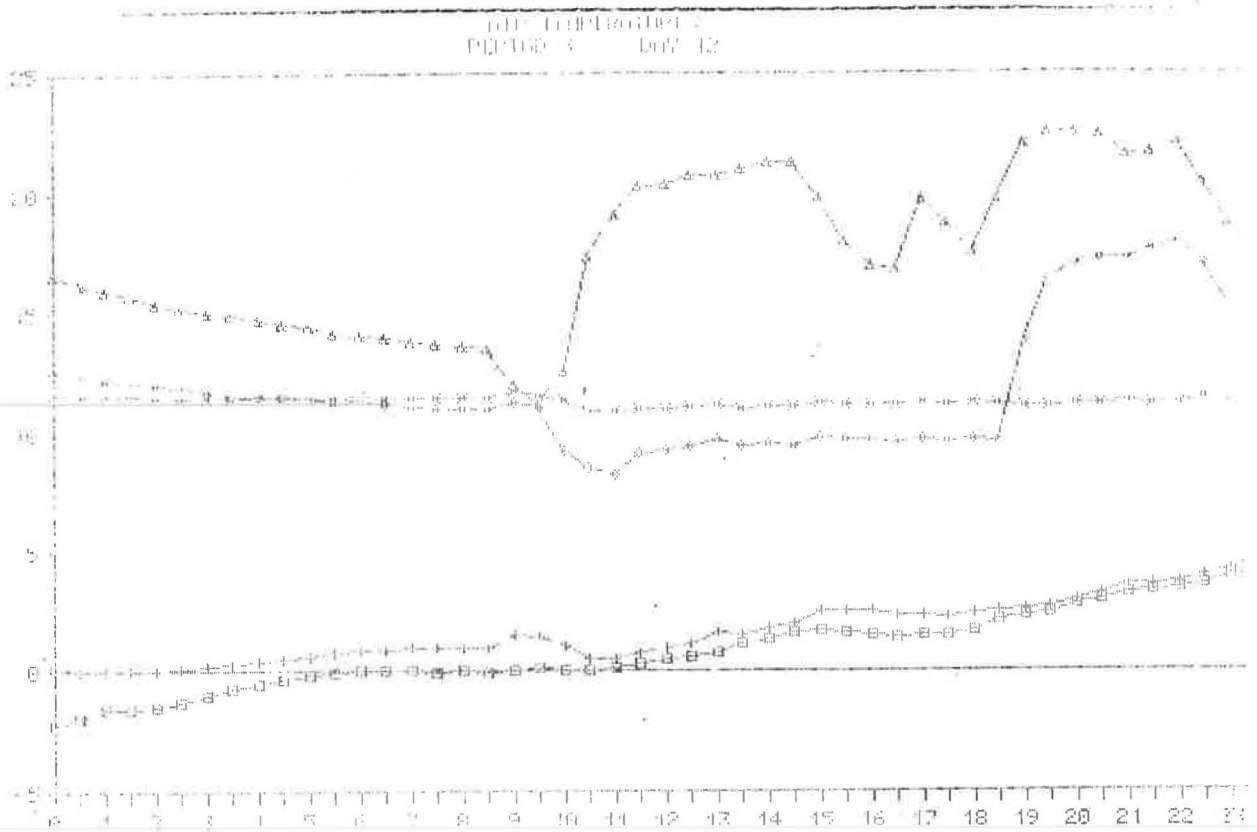


TIME (HOURS)

□ OUTSIDE + ATTIC ◇ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR


TIME (HOURS)
□ OUTSIDE ◇ ATTIC ○ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR

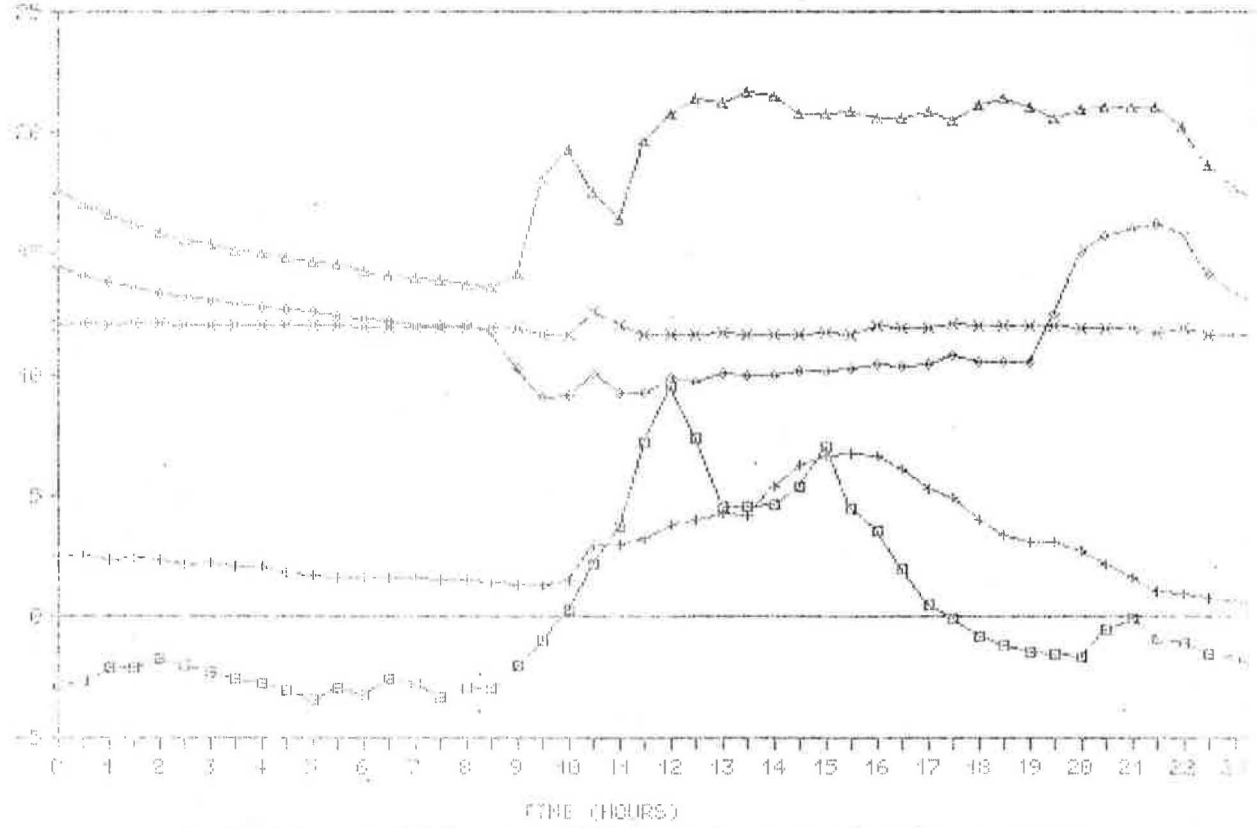

TIME (HOURS)
□ OUTSIDE ◇ ATTIC ○ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR



TIME (HOURS)

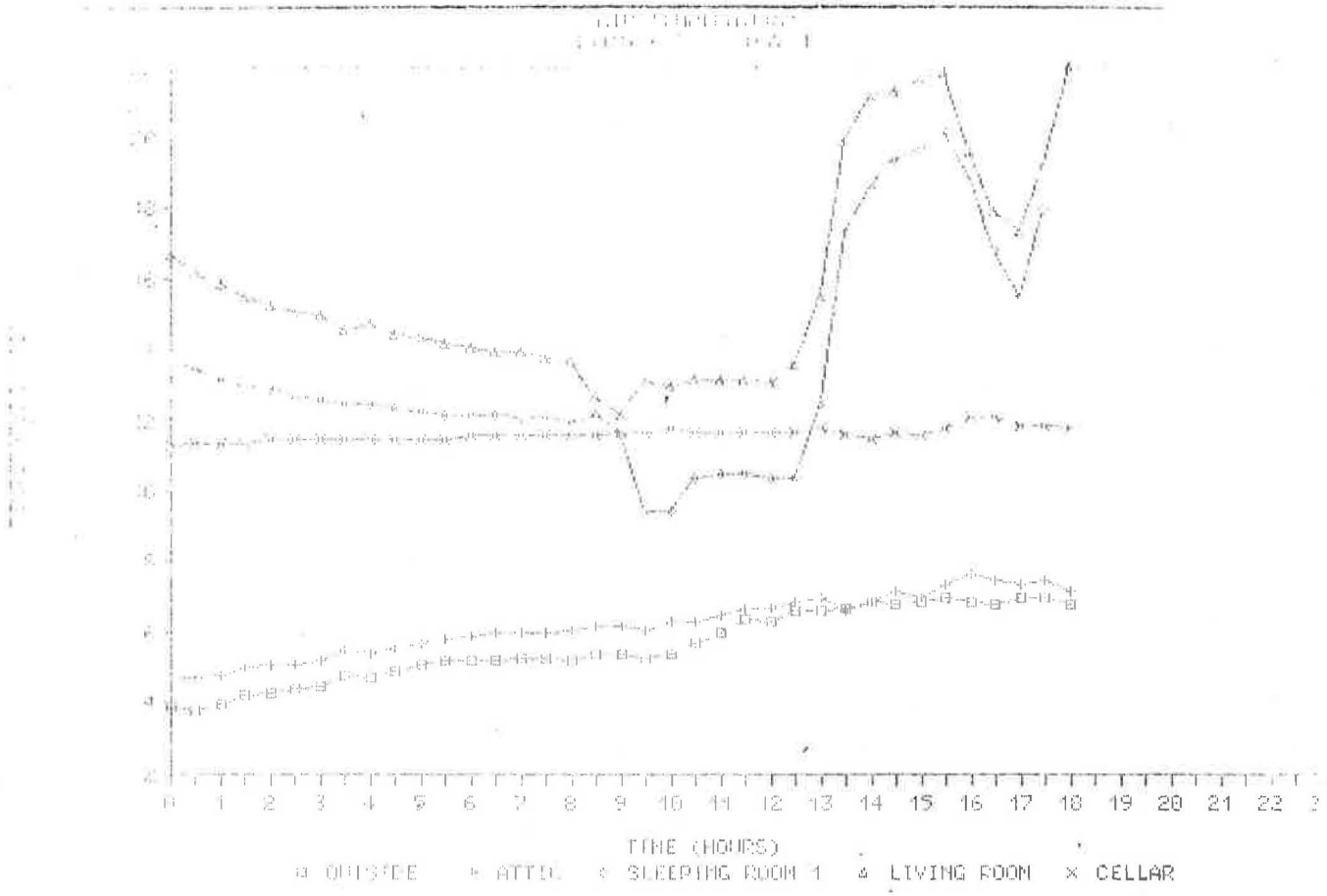
□ OUTSIDE + ATTIC ◇ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR

AIR TEMPERATURES
PERIOD 3 DAY 11

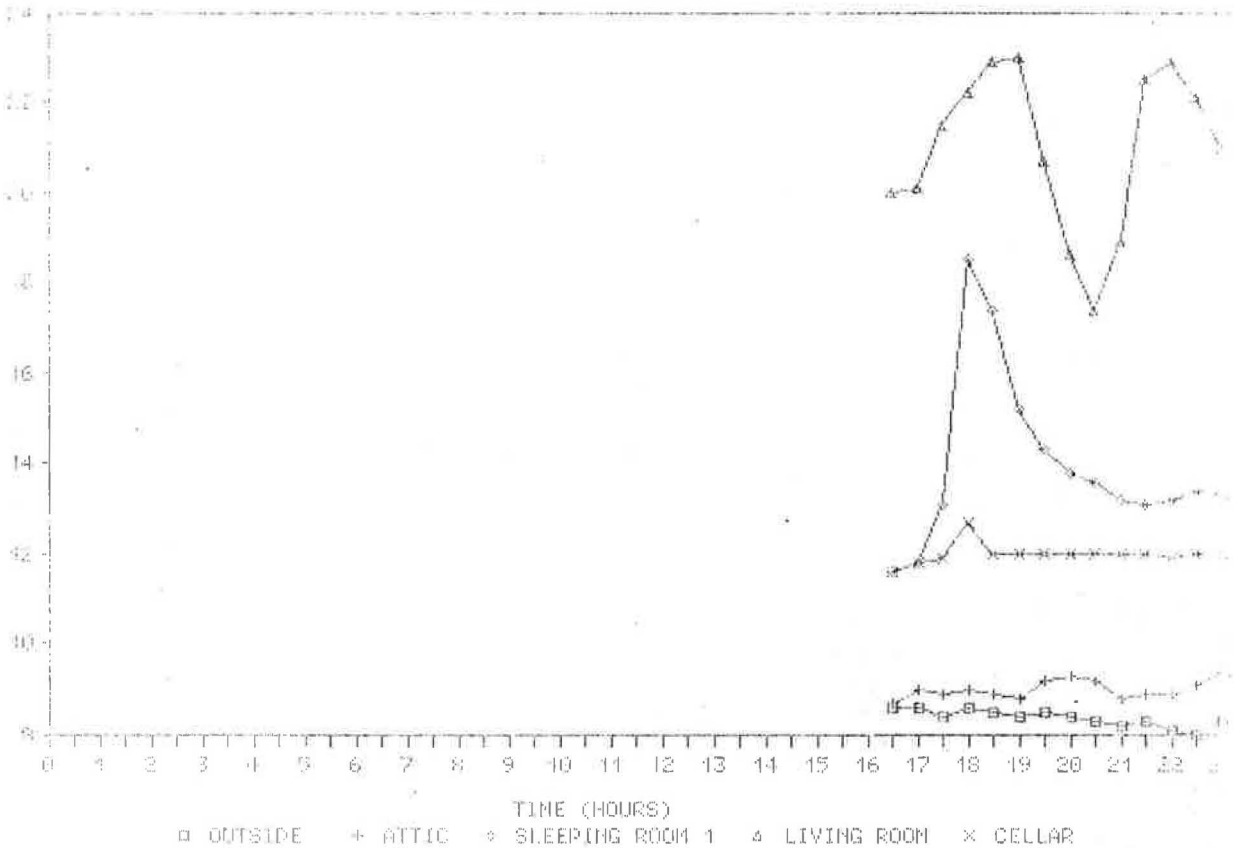


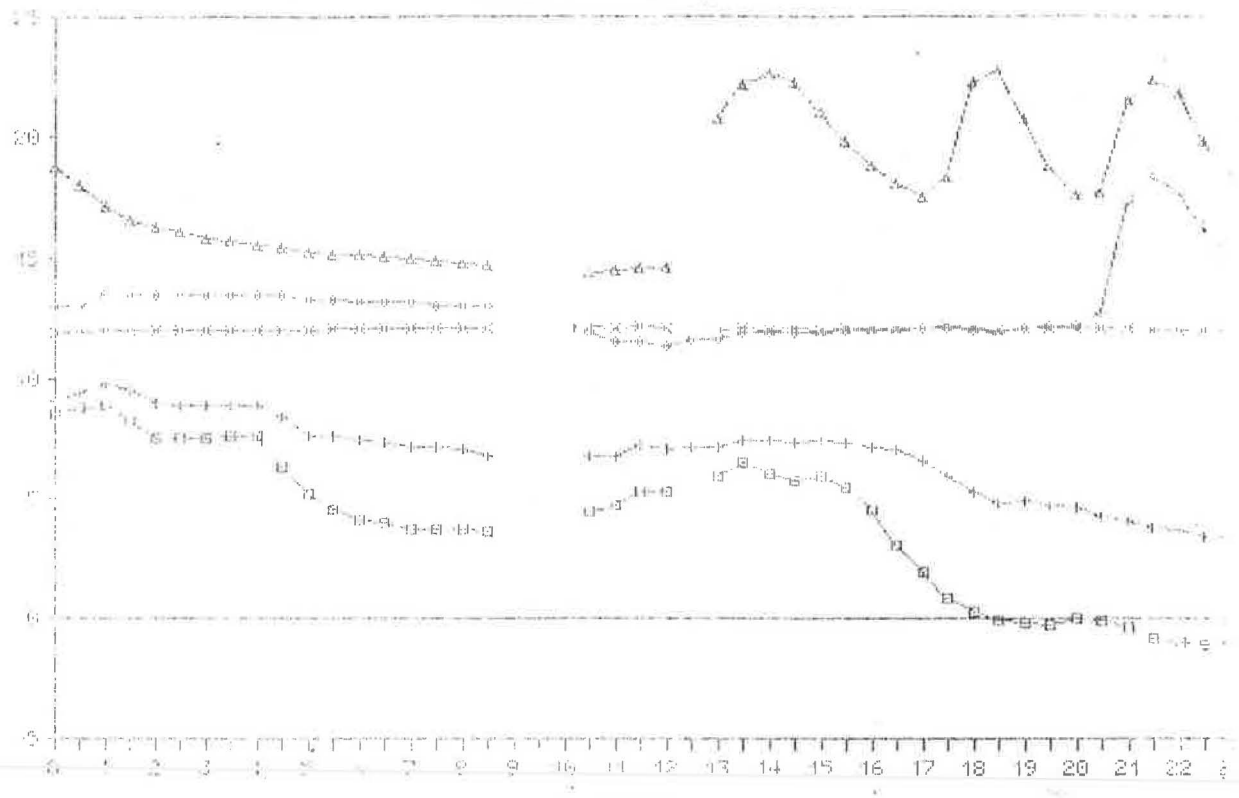
TIME (HOURS)

□ OUTSIDE + ATTIC ◇ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR

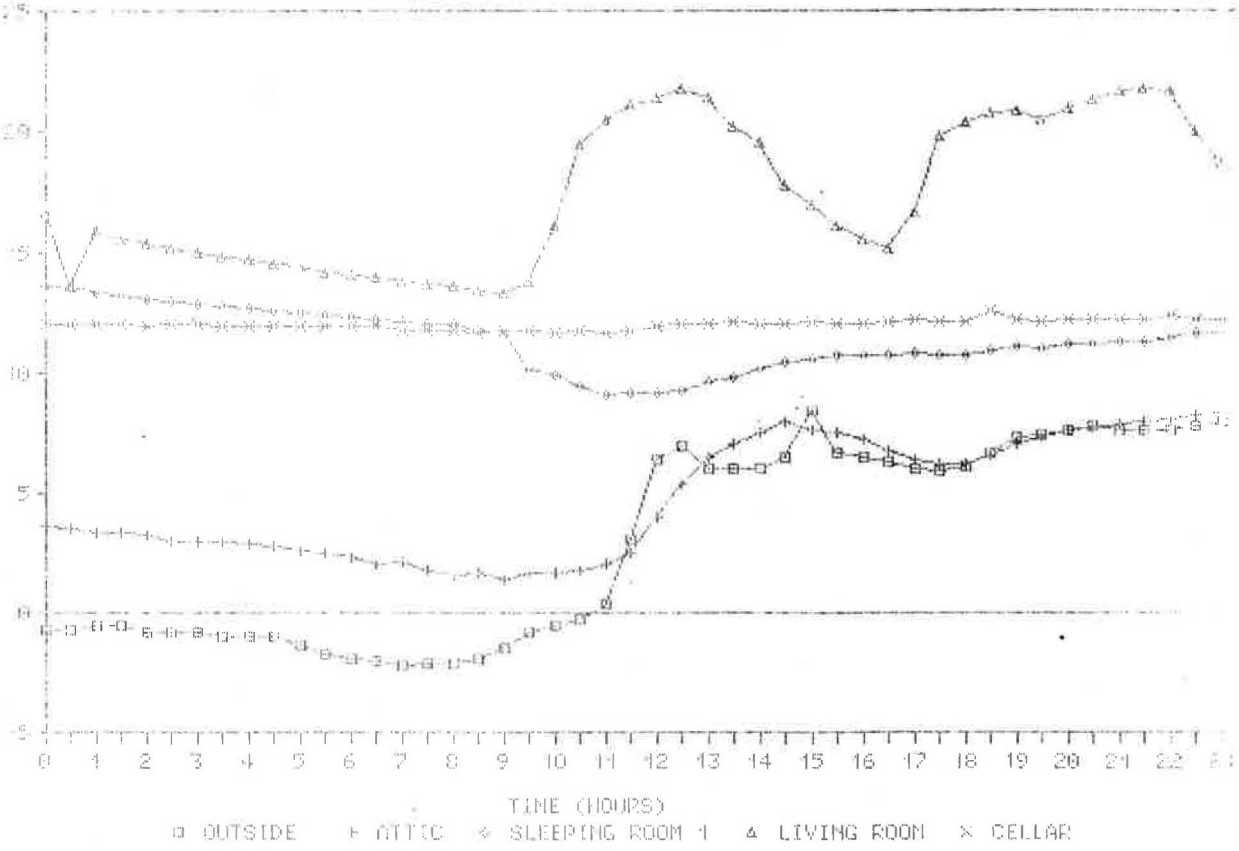


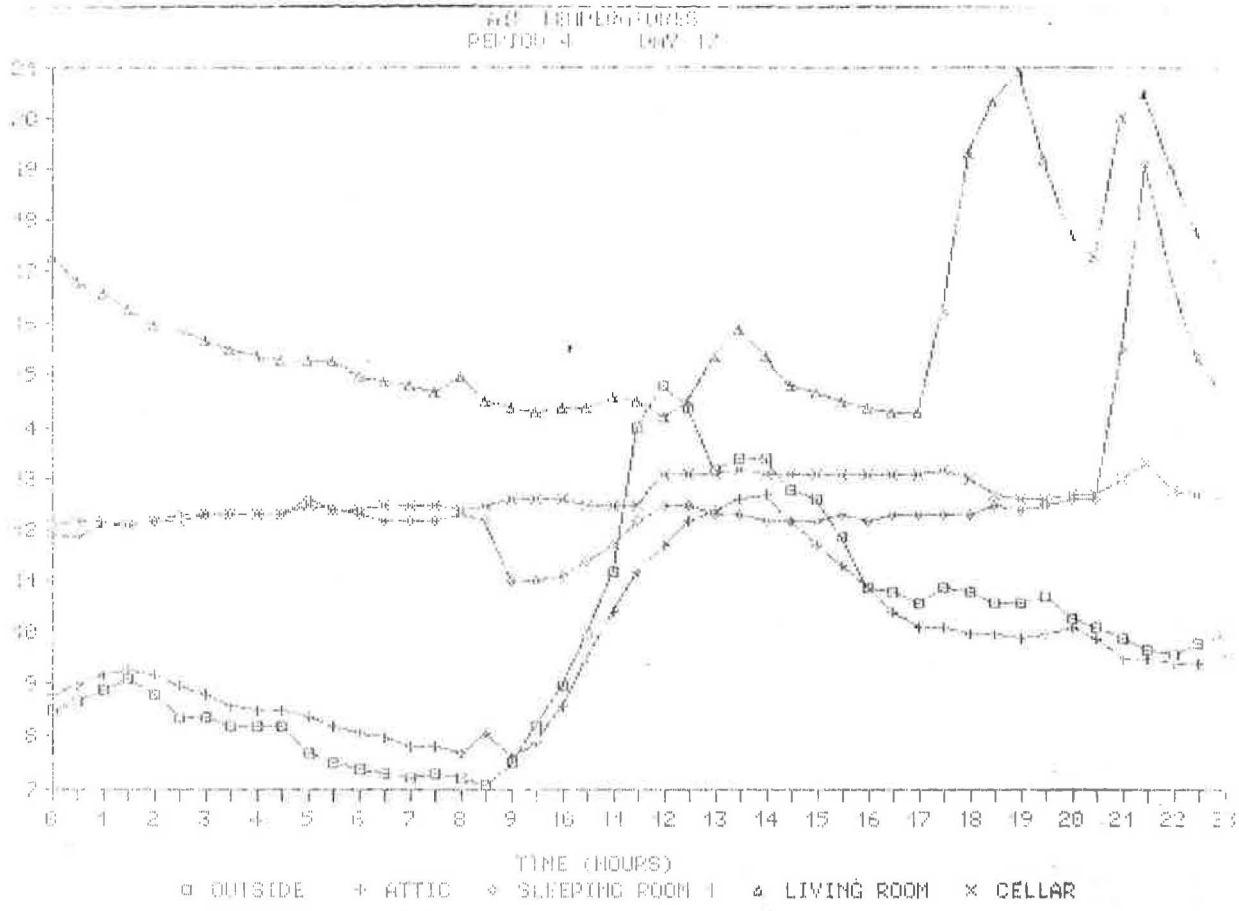
AIR TEMPERATURES
PERIOD 4 DAY 14

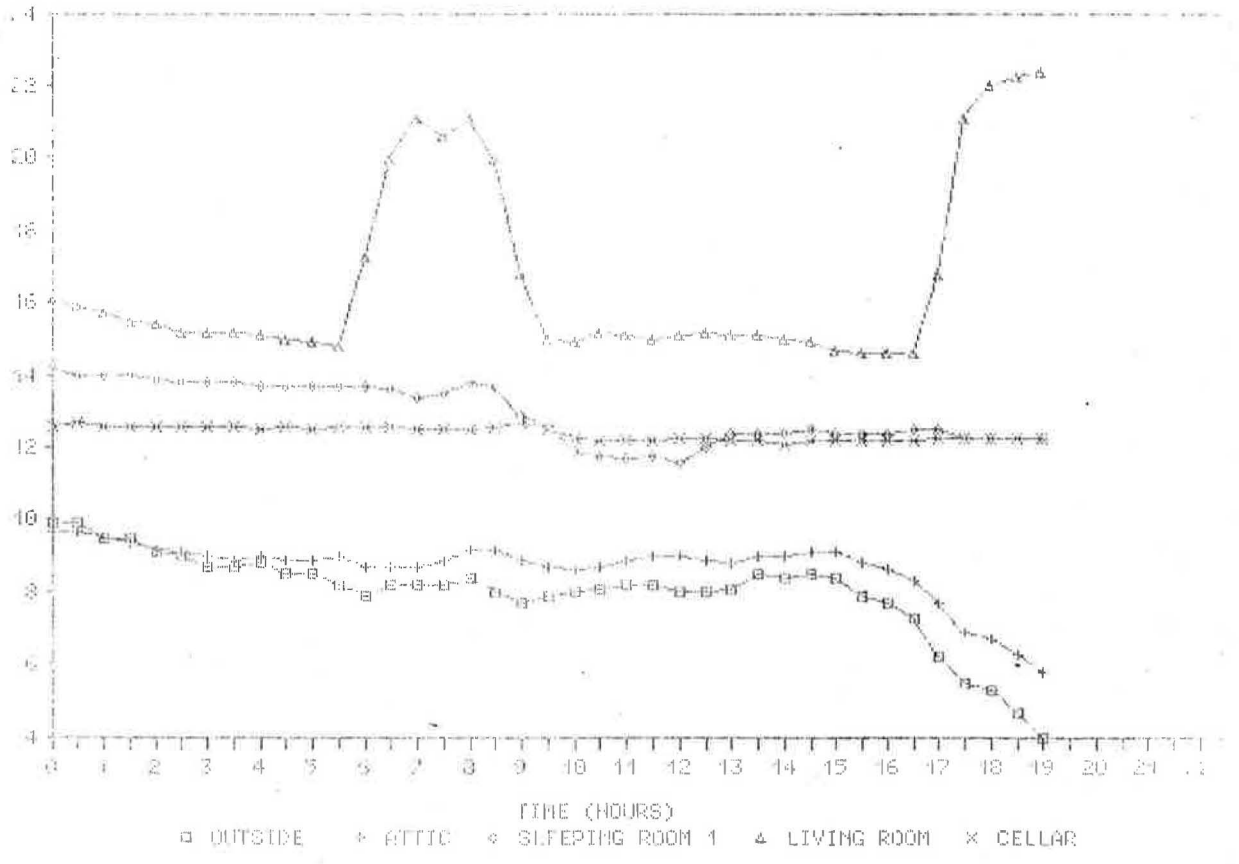


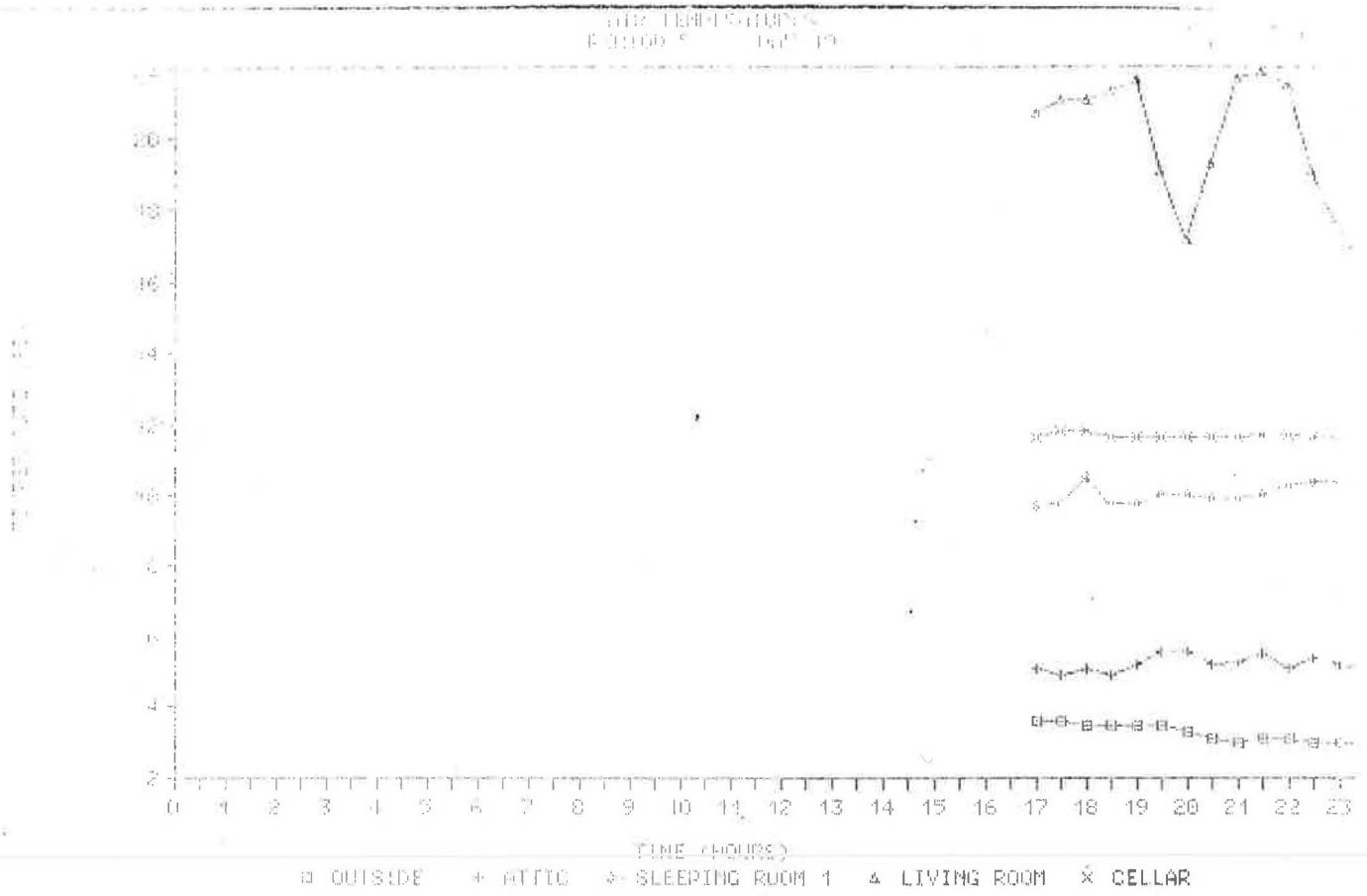


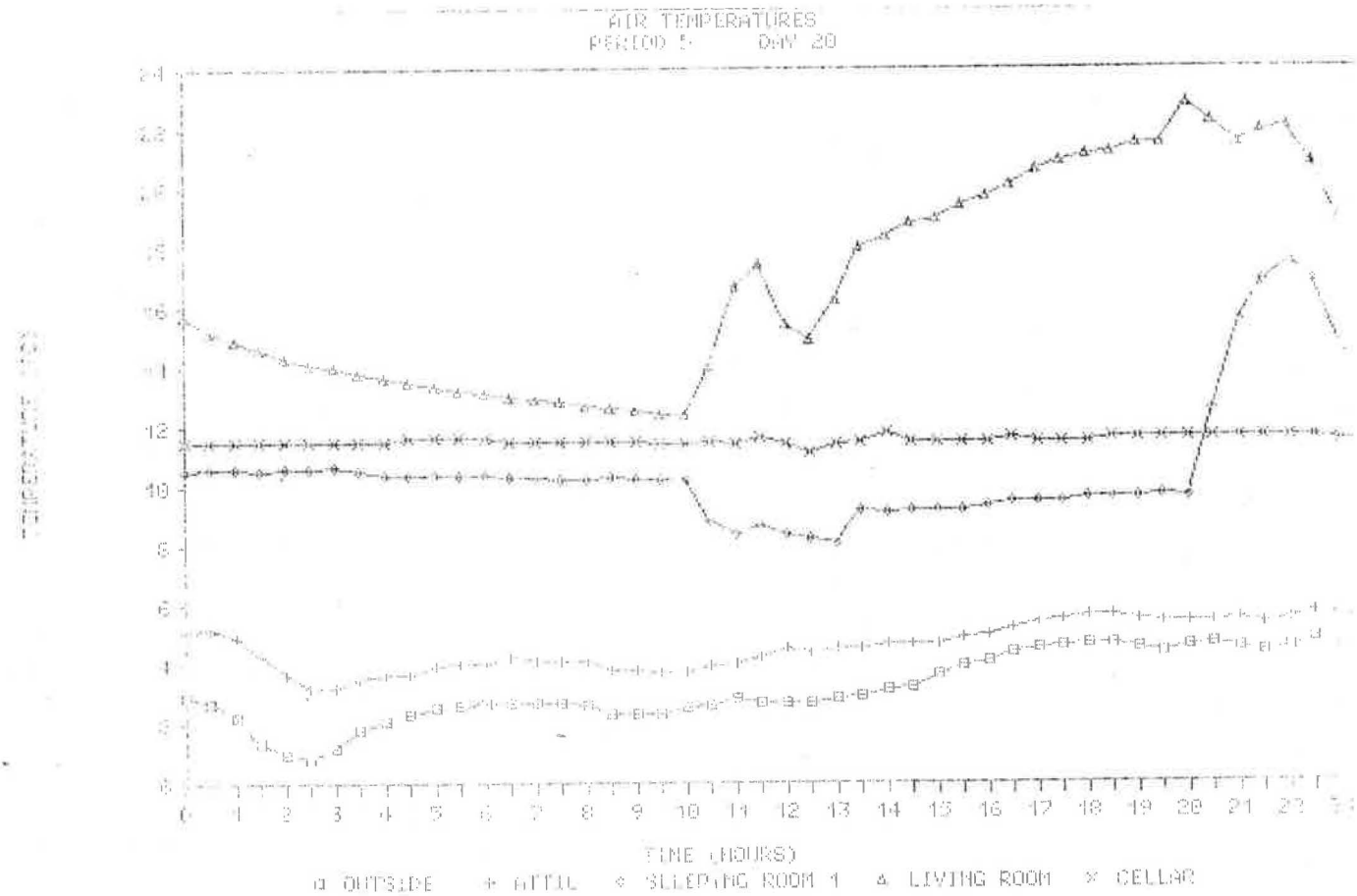
AIR TEMPERATURES
PERIOD 4 DAY 16

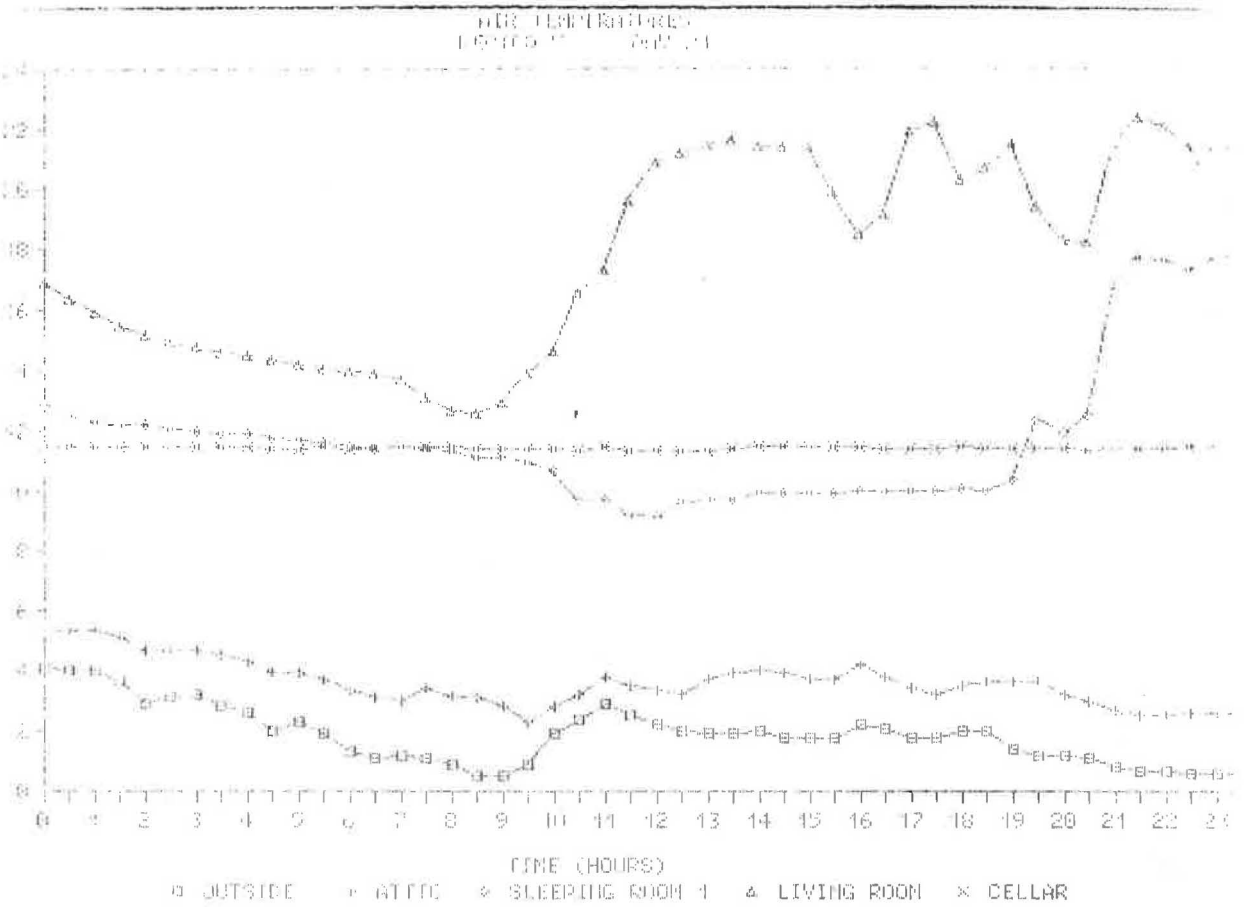


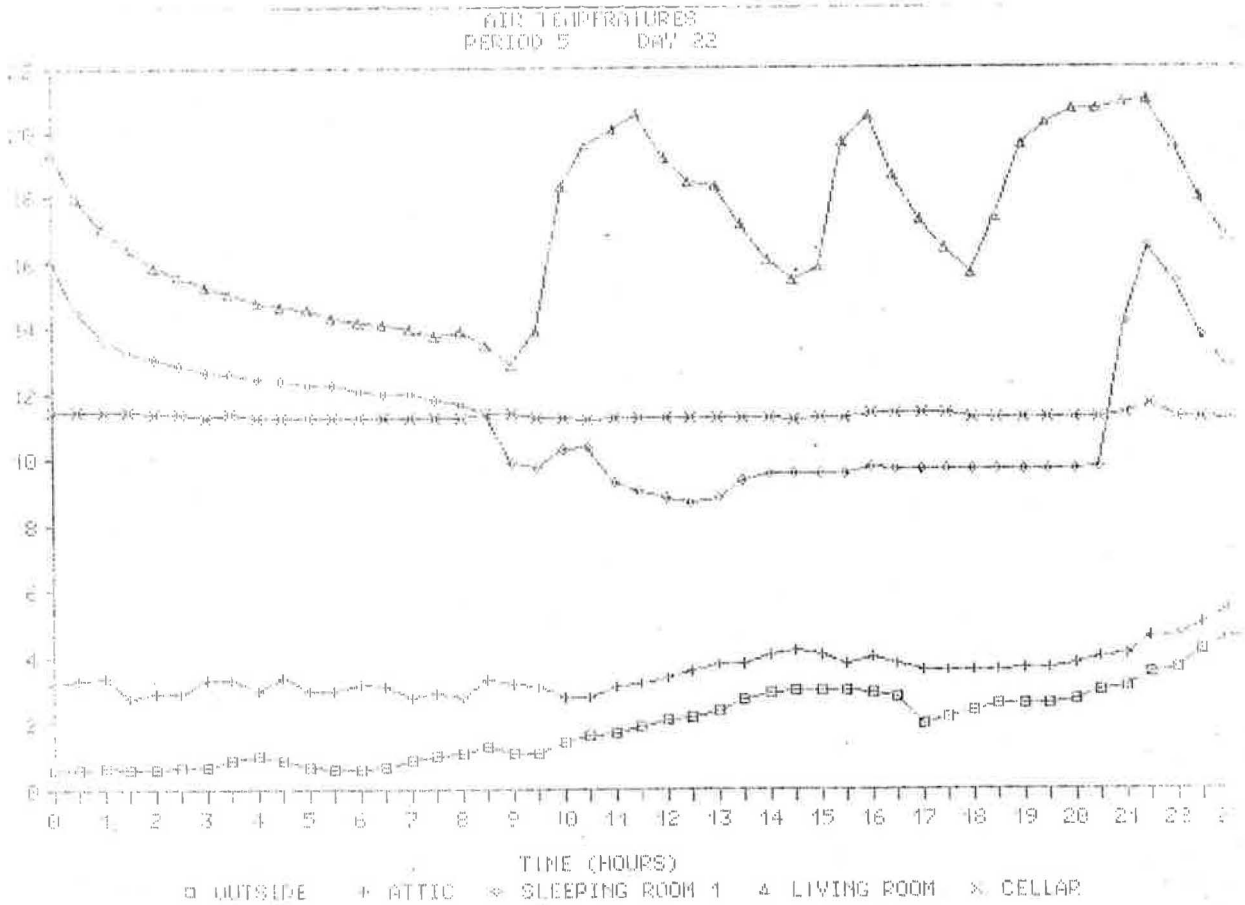

AIR TEMPERATURES
PERIOD 4 DAY 12
TIME (HOURS)
□ OUTSIDE + ATTIC ◇ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR

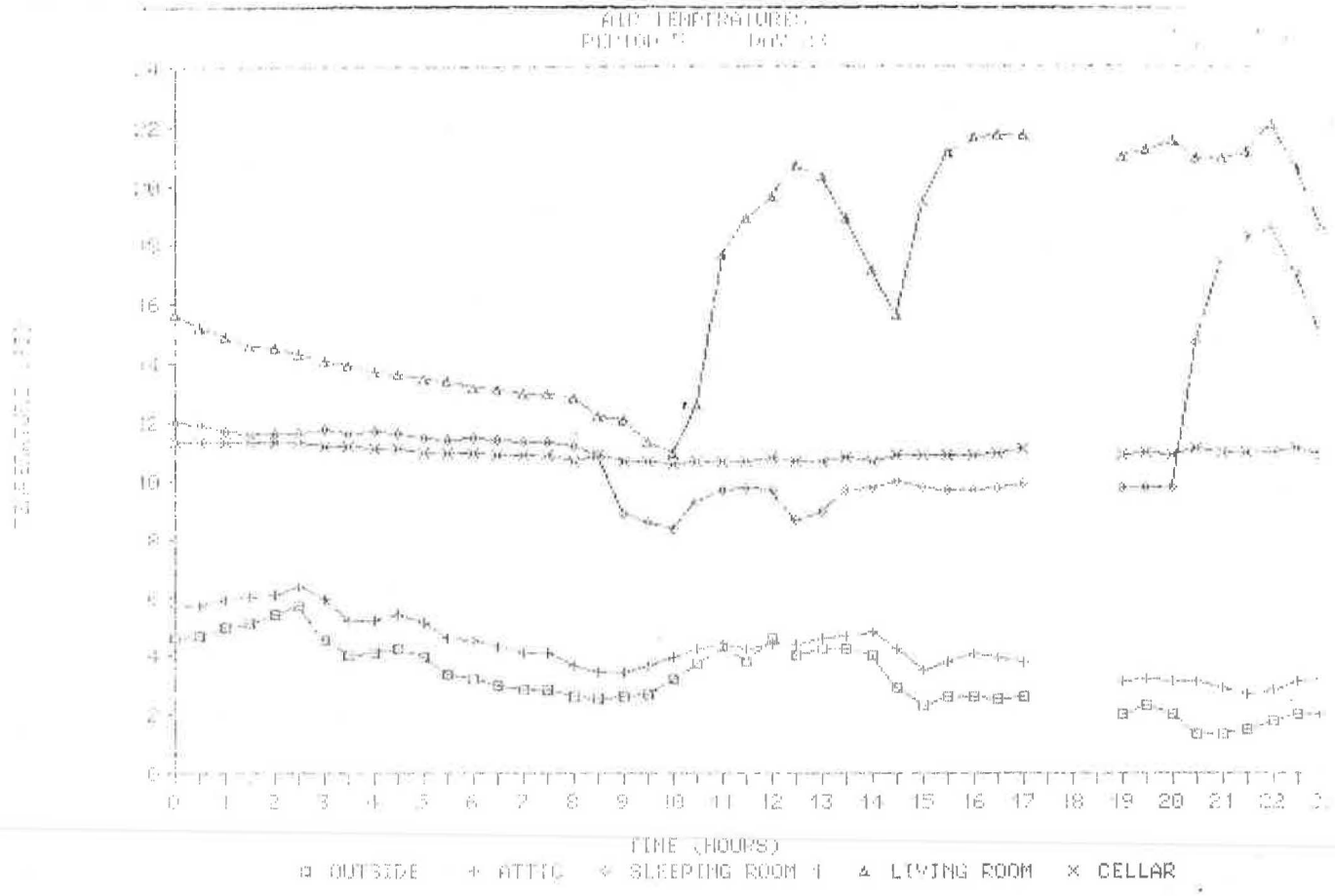

AIR TEMPERATURES
PERIOD 4 DAY 13
TIME (HOURS)
□ OUTSIDE + ATTIC ◇ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR

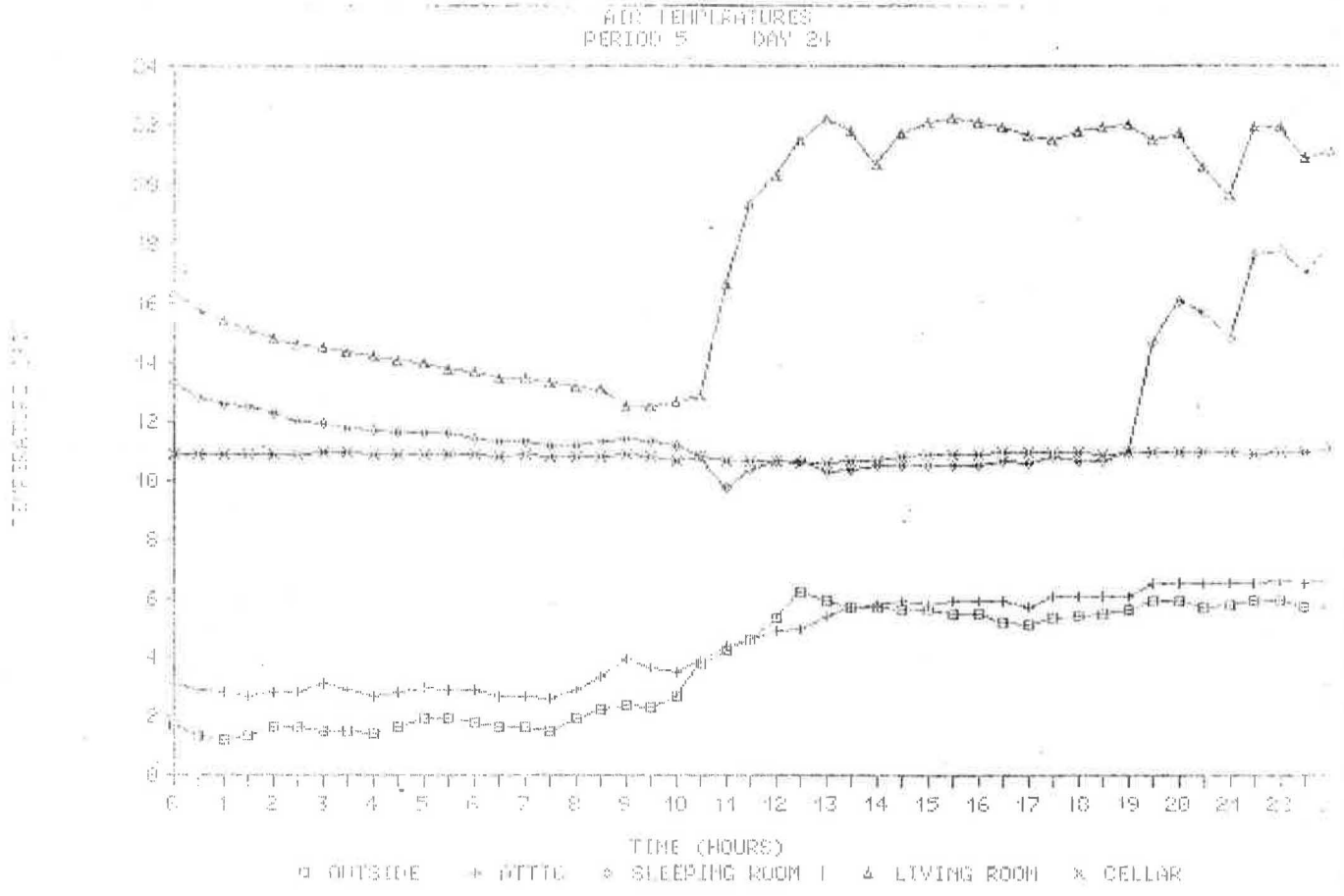

TIME (HOURS)
□ OUTSIDE + ATTIC ◇ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR

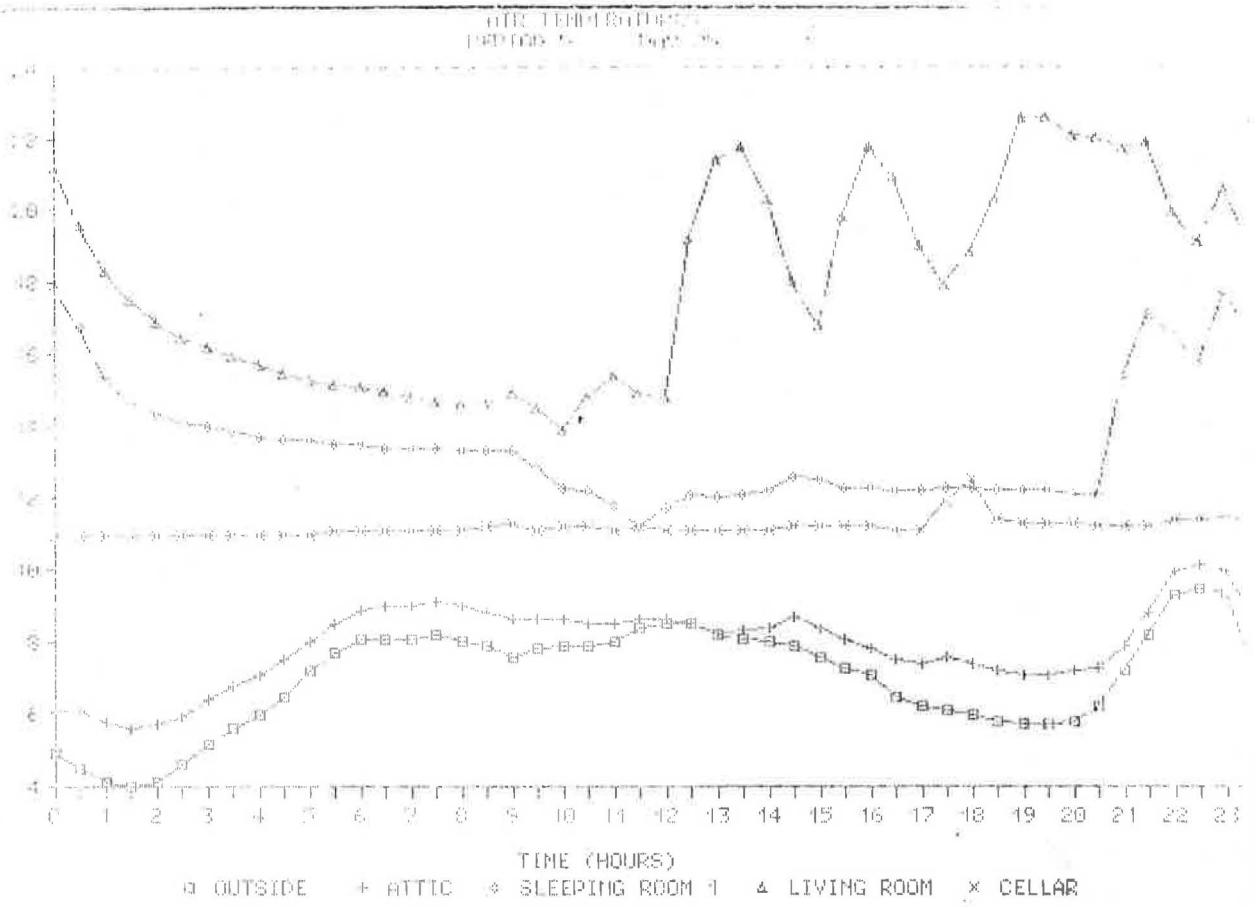

AIR TEMPERATURES
PERIOD 5 DAY 20
TIME (HOURS)
□ OUTSIDE + ATTIC ◇ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR

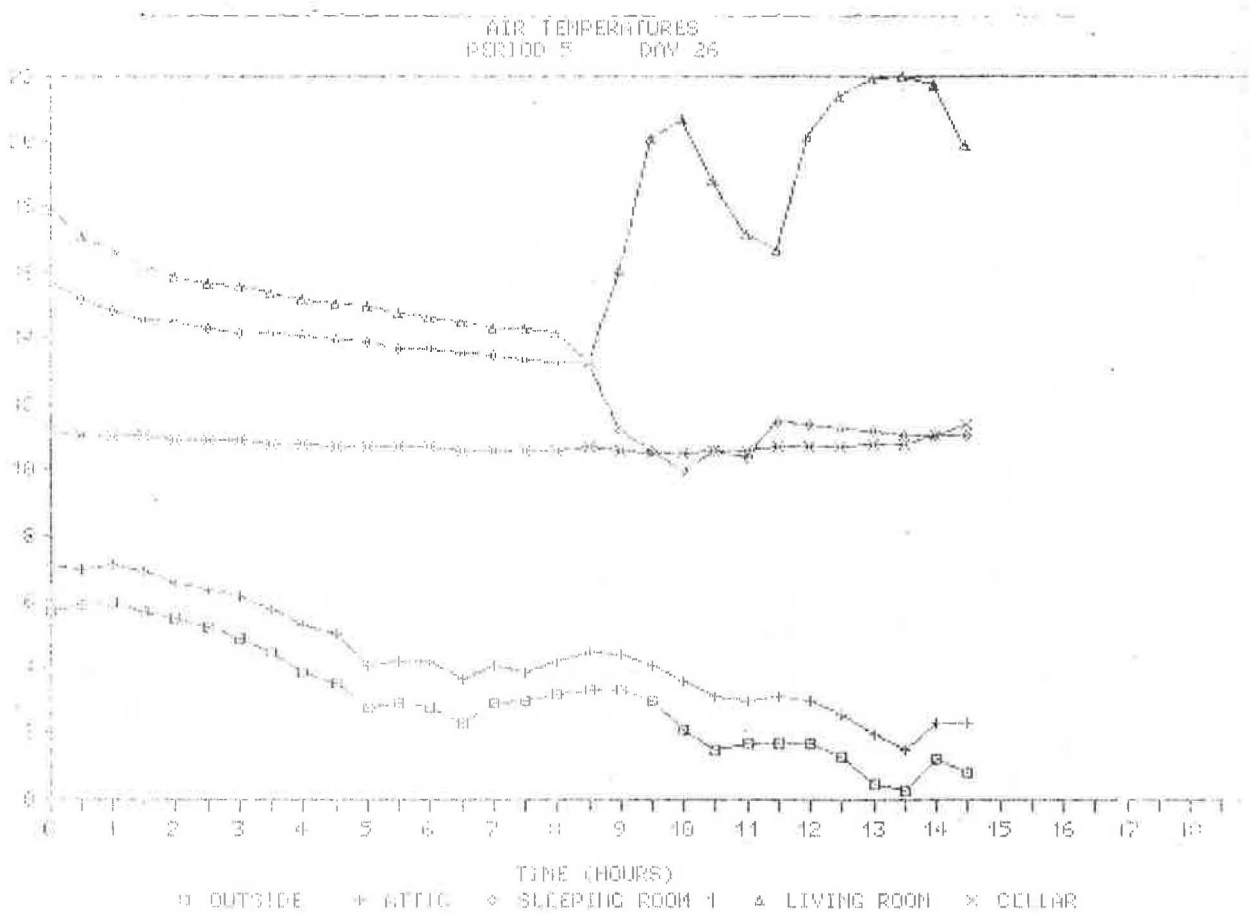

TIME (HOURS)
□ OUTSIDE + ATTIC ◇ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR

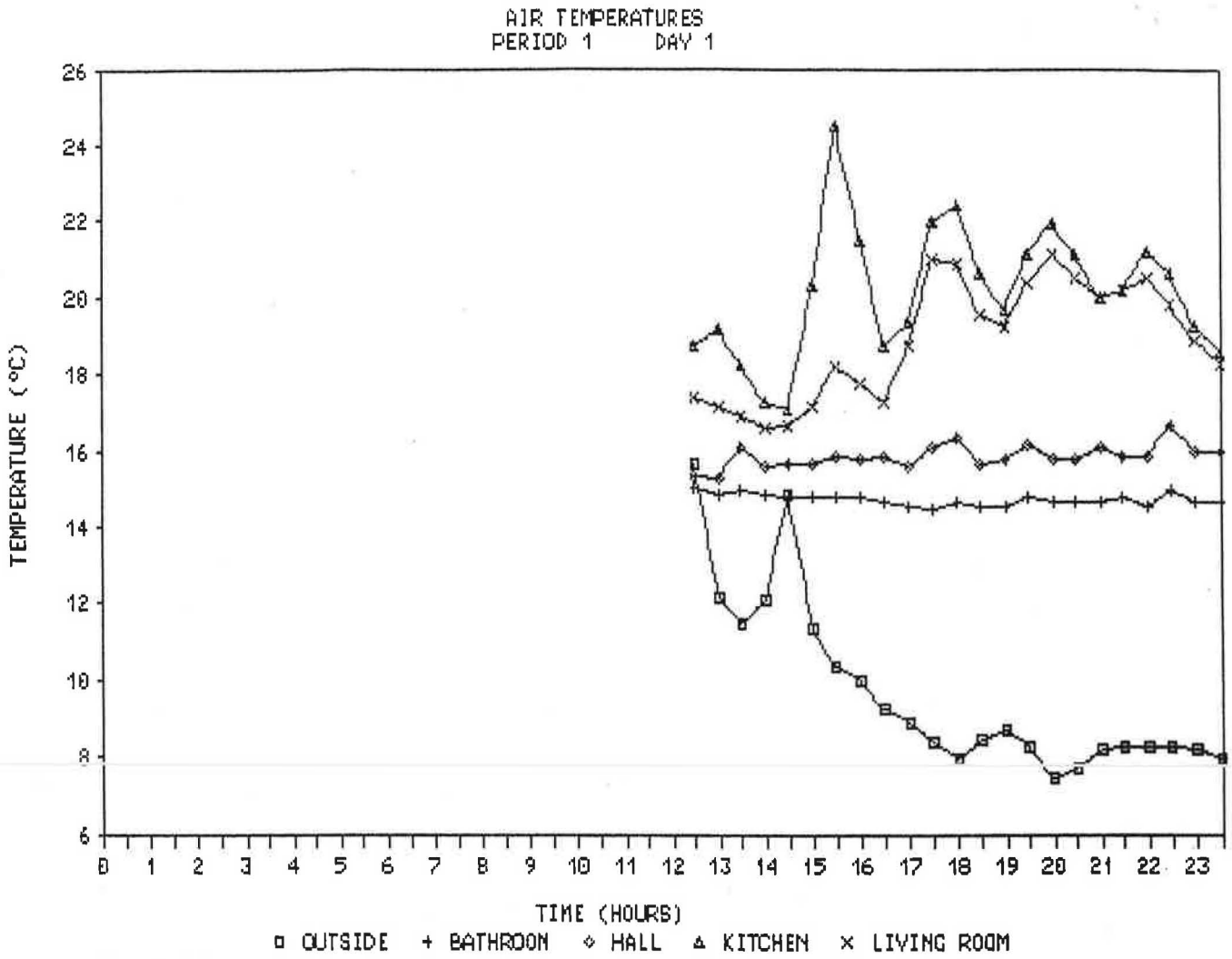

AIR TEMPERATURES
PERIOD 5 DAY 22
TIME (HOURS)
□ OUTSIDE + ATTIC ◇ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR

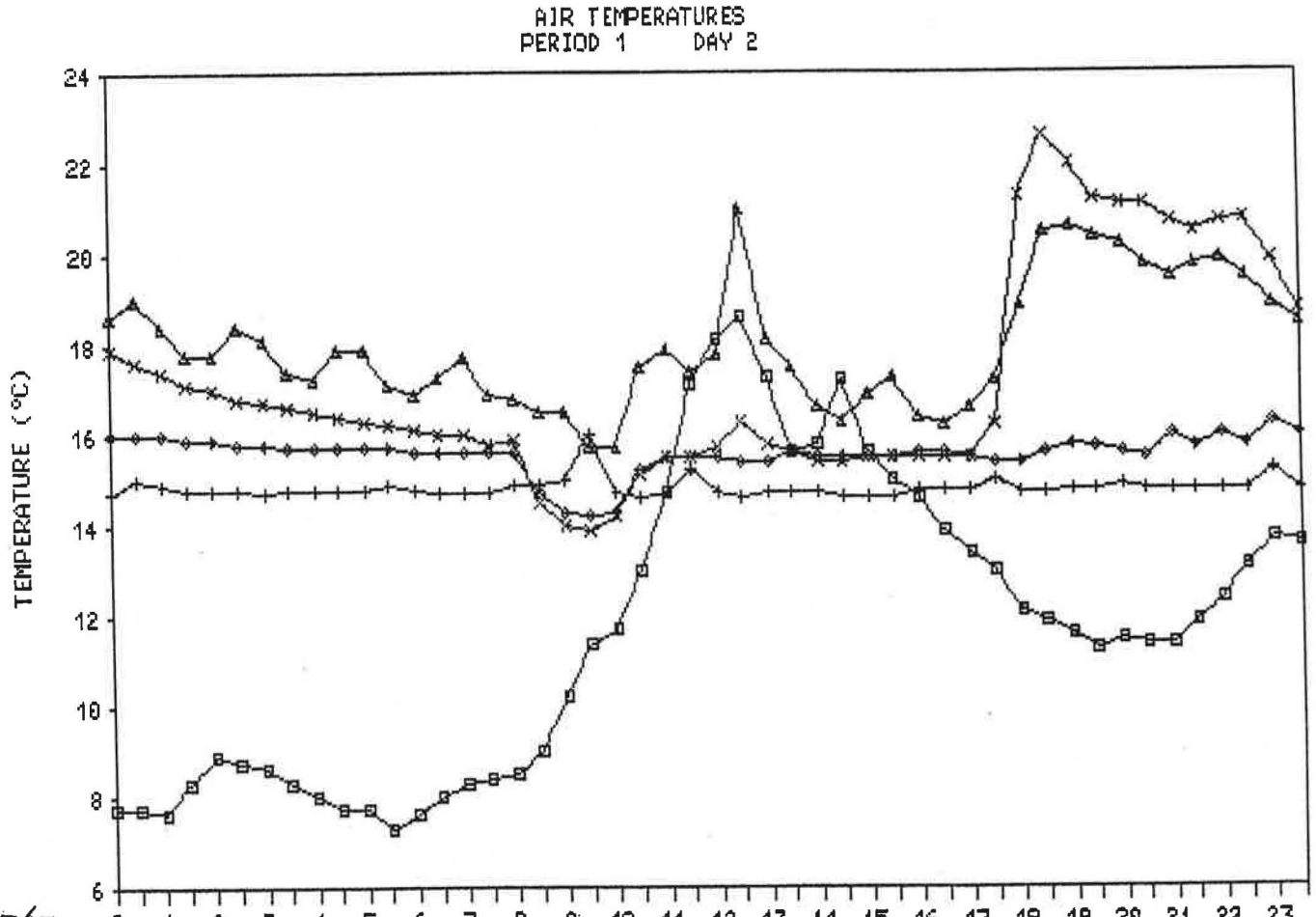

AIR TEMPERATURES
PERIOD 5 DAY 24
TEMPERATURE (°F)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
TIME (HOURS)
□ OUTSIDE + ATTIC ◇ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR


AIR TEMPERATURES
PERIOD 5 DAY 24
TEMPERATURE (°F)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
TIME (HOURS)
□ OUTSIDE + ATTIC ◇ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR

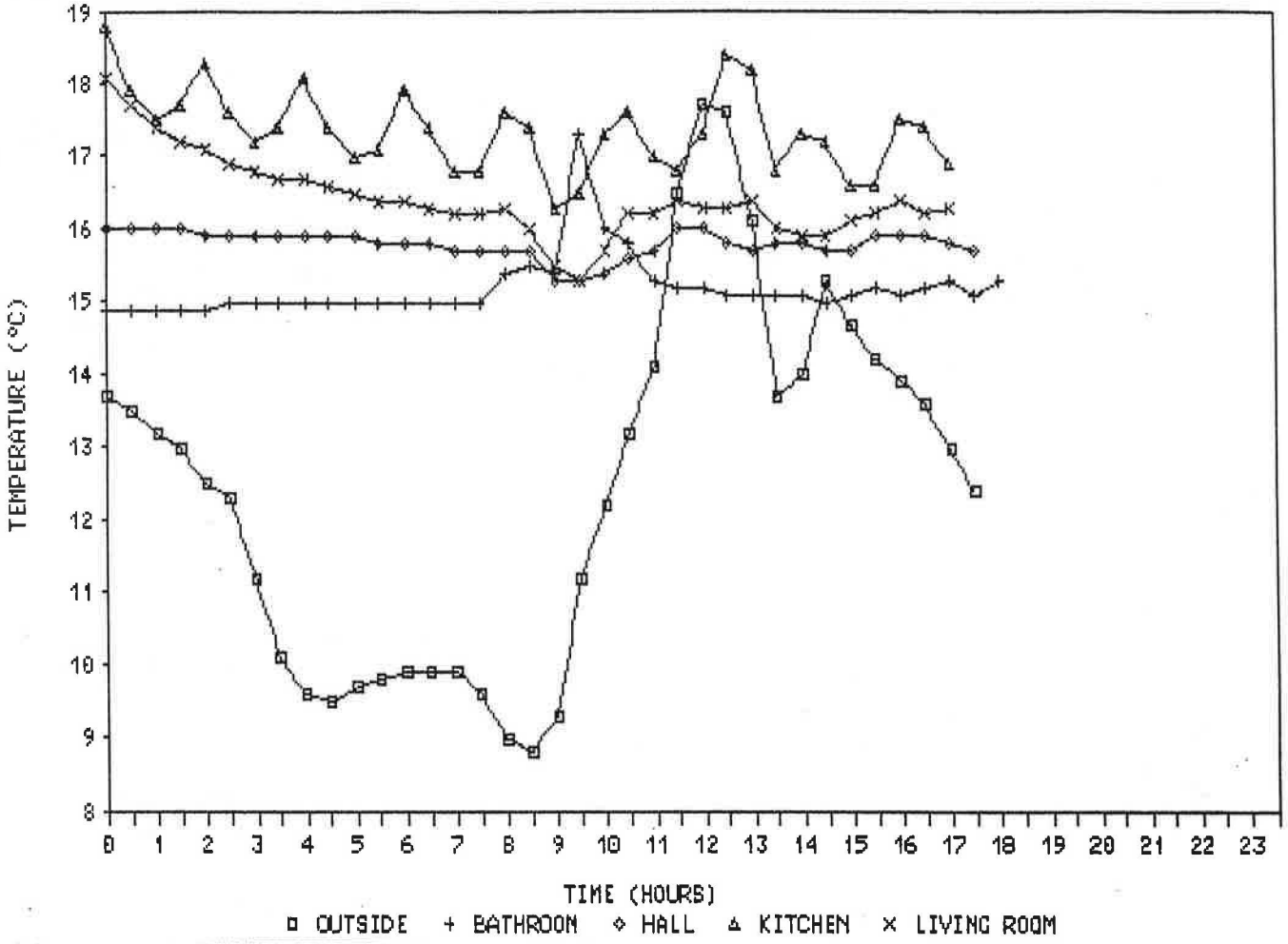

TIME (HOURS)
□ OUTSIDE + ATTIC ◇ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR


AIR TEMPERATURES
PERIOD 5 DAY 26
TIME (HOURS)
□ OUTSIDE + ATTIC ◇ SLEEPING ROOM 1 △ LIVING ROOM × CELLAR

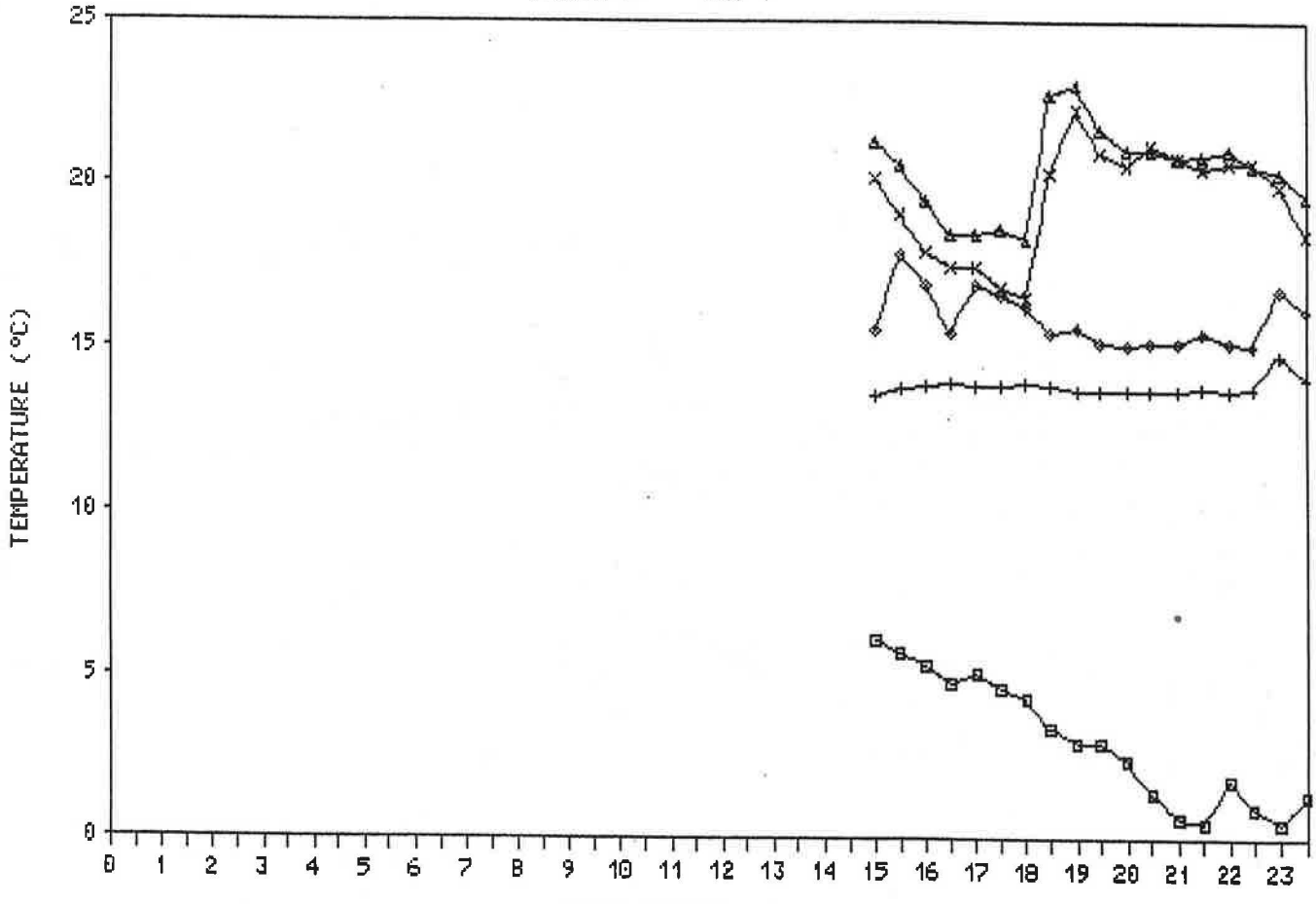

AIR TEMPERATURES
PERIOD 1 DAY 1
TEMPERATURE (°C)
26
24
22
20
18
16
14
12
10
8
6
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM

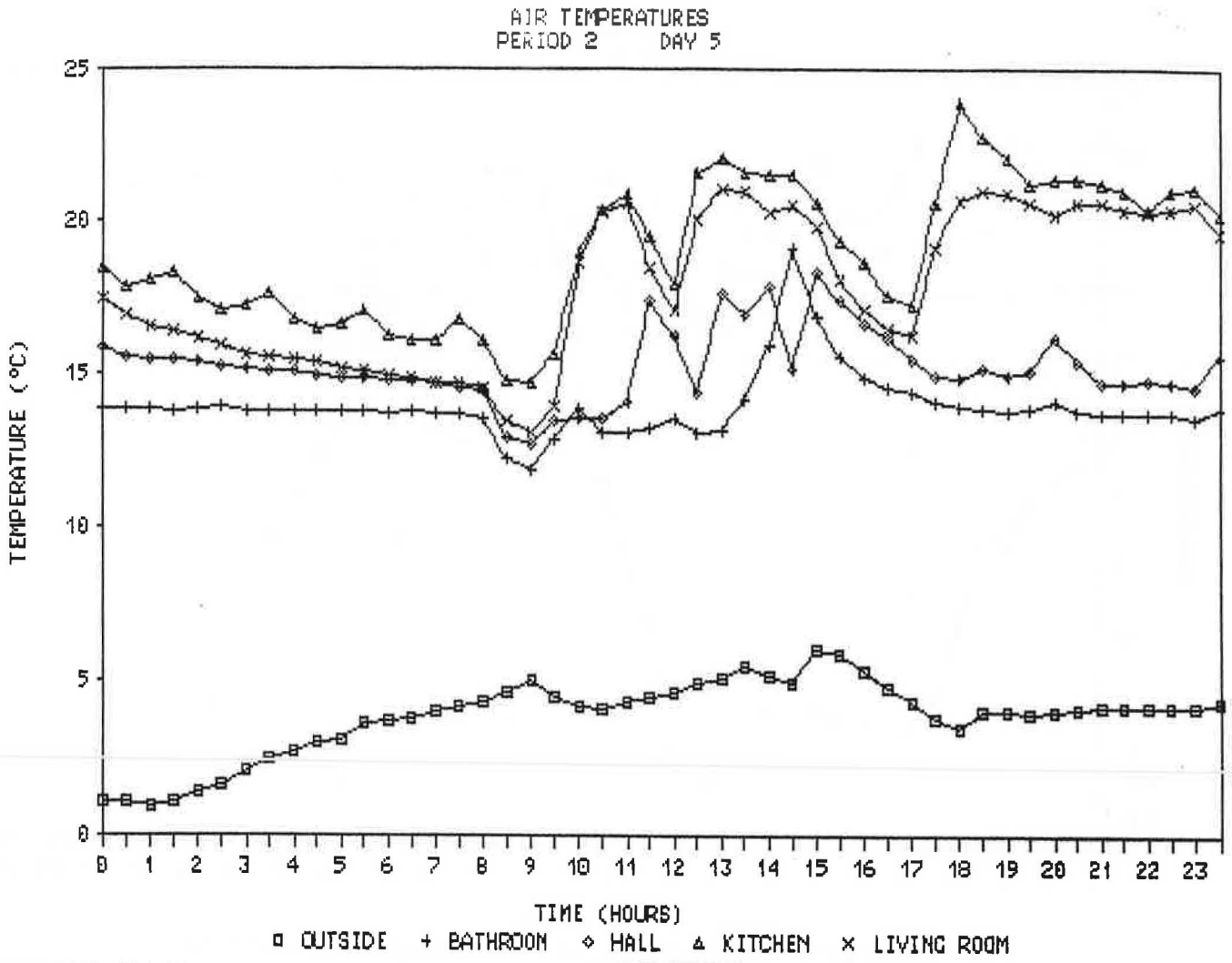

AIR TEMPERATURES
PERIOD 1 DAY 2
TEMPERATURE (°C)
24
22
20
18
16
14
12
10
8
6
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

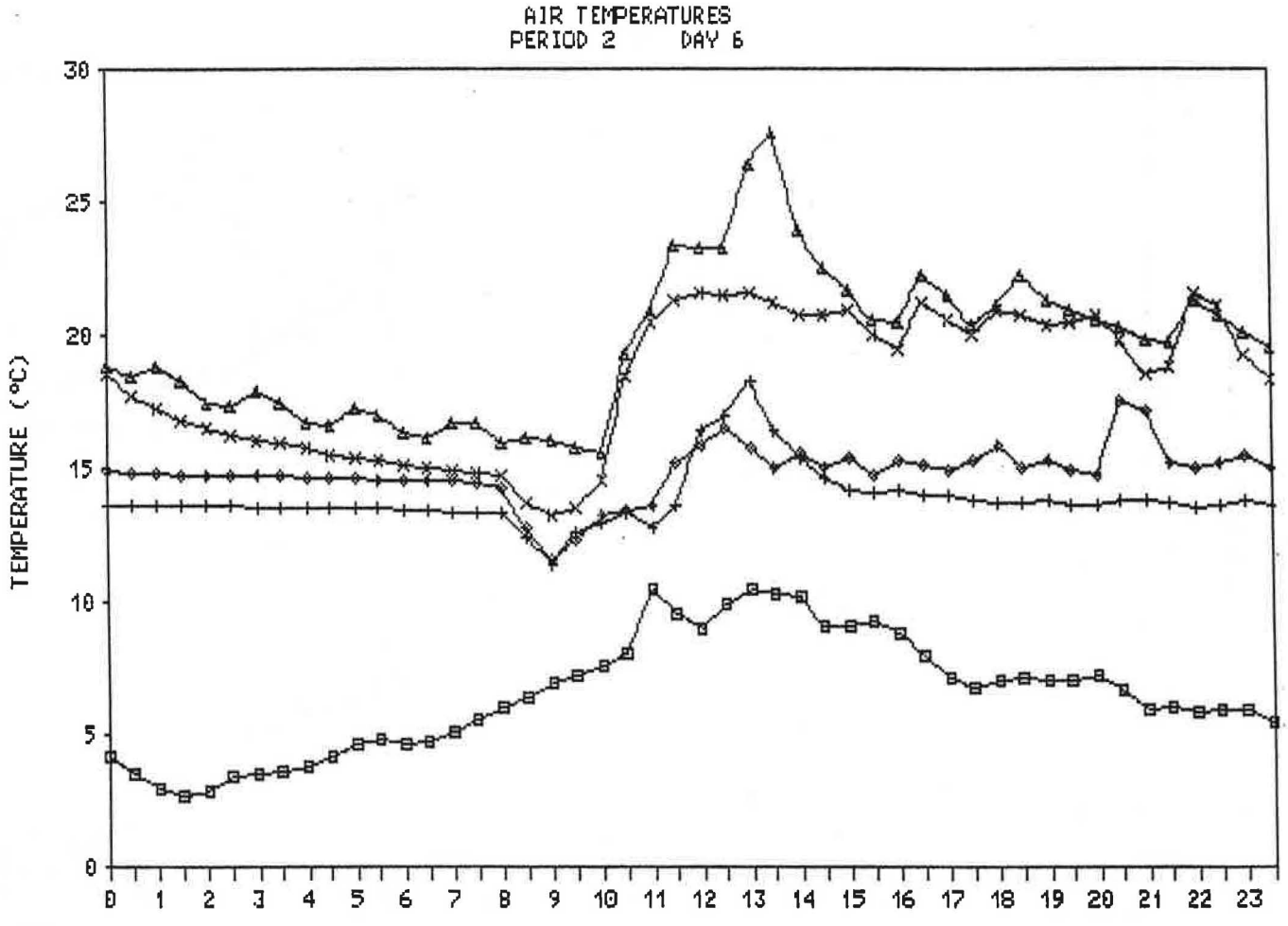
AIR TEMPERATURES
PERIOD 1 DAY 3

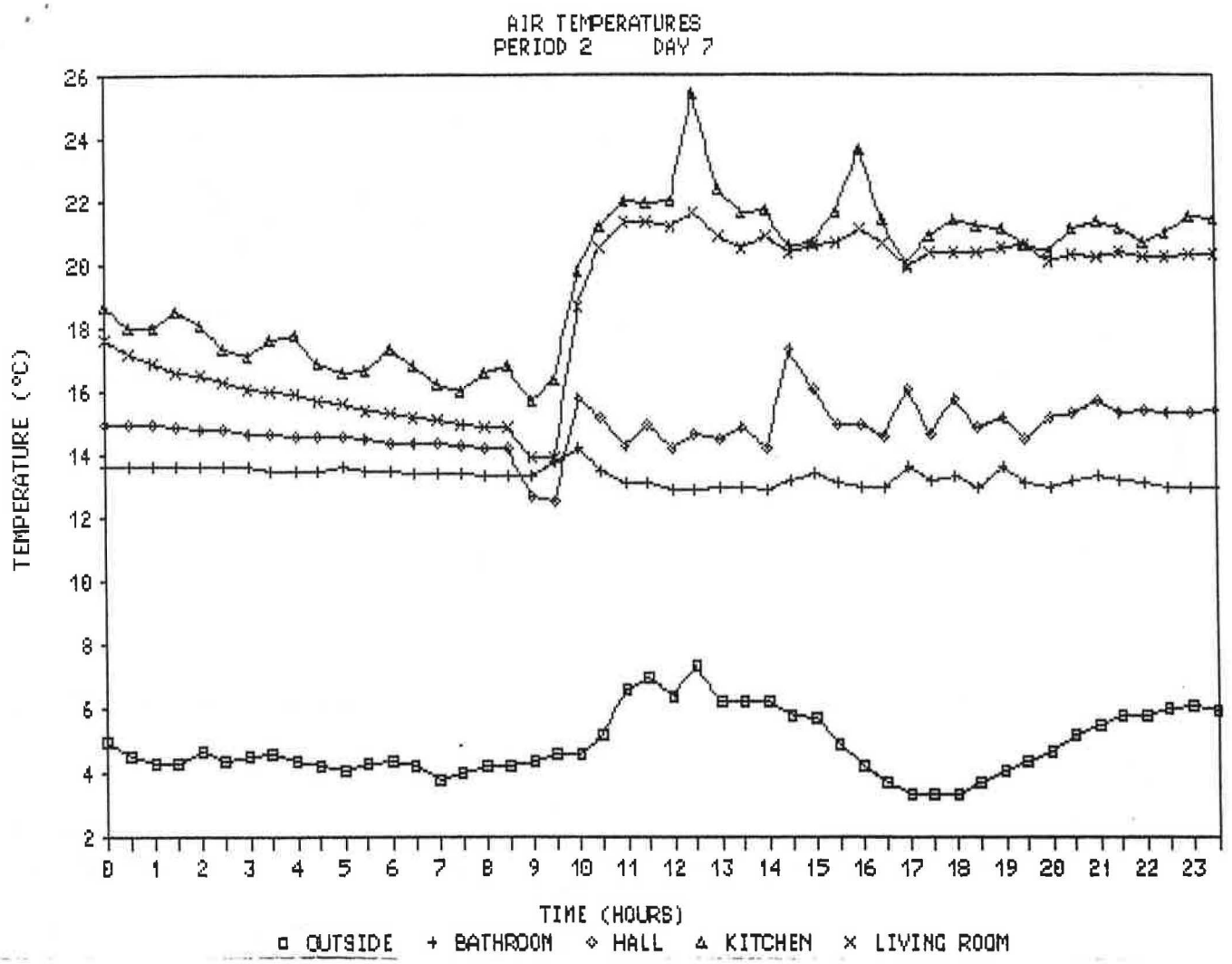


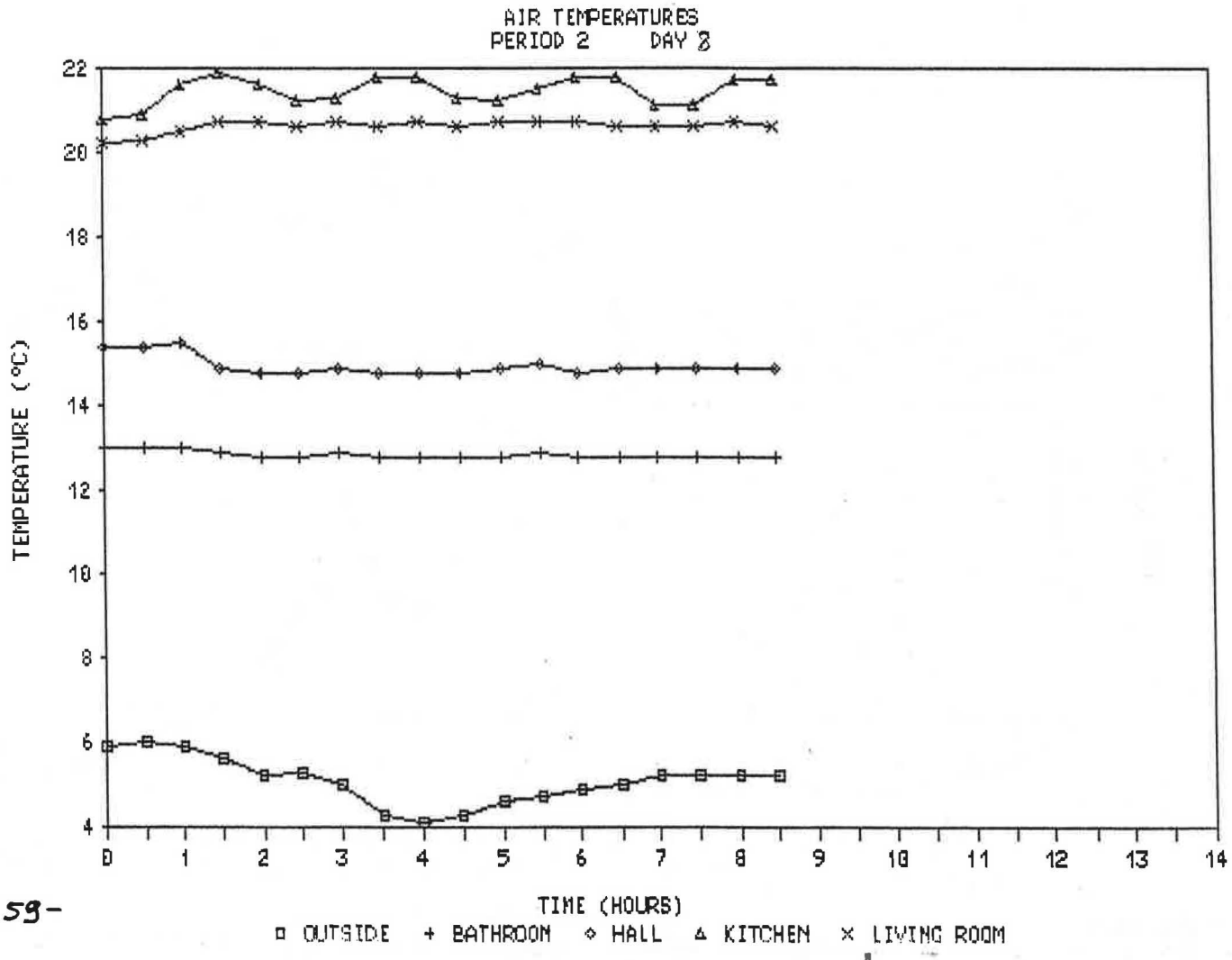
AIR TEMPERATURES
PERIOD 2 DAY 4

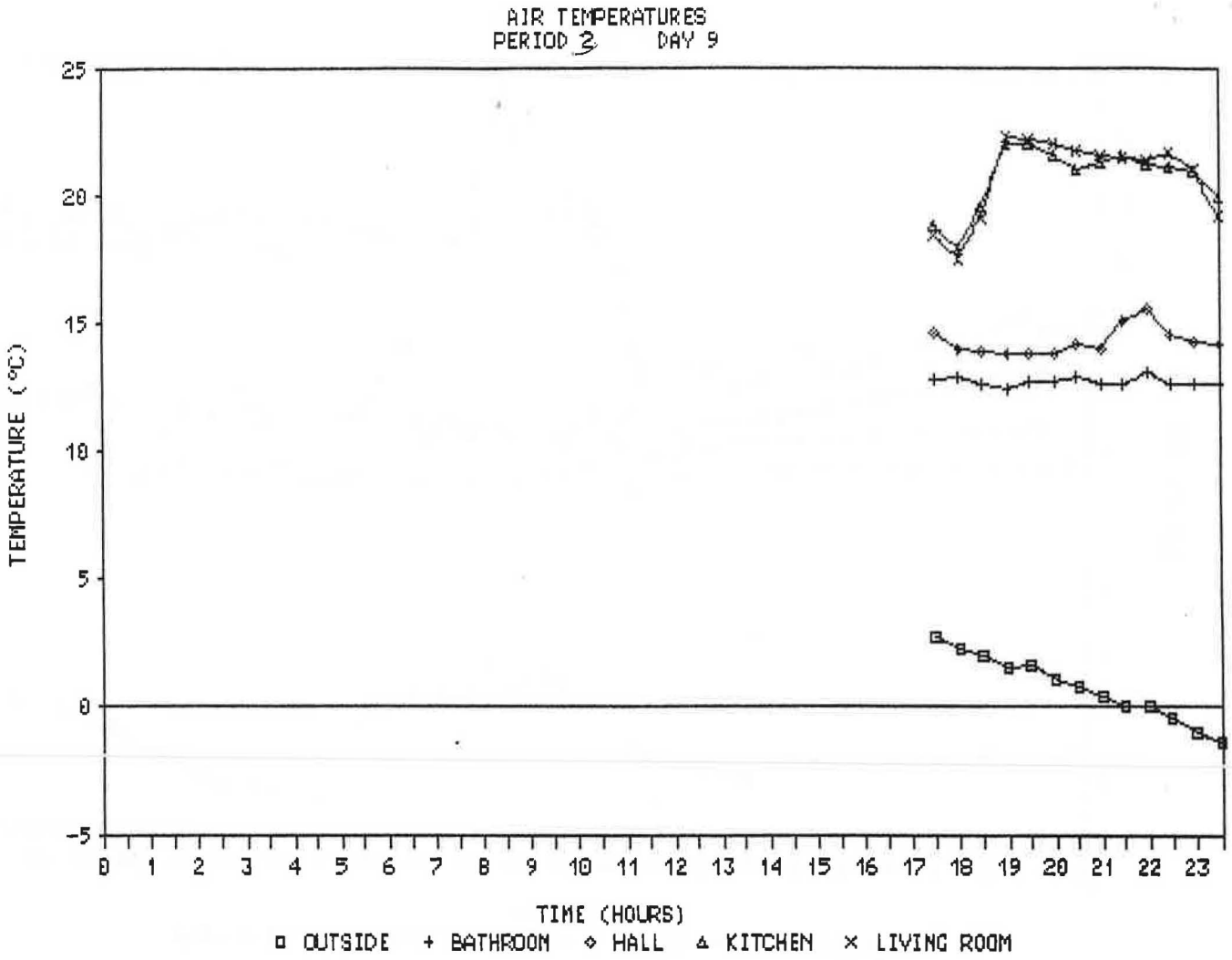


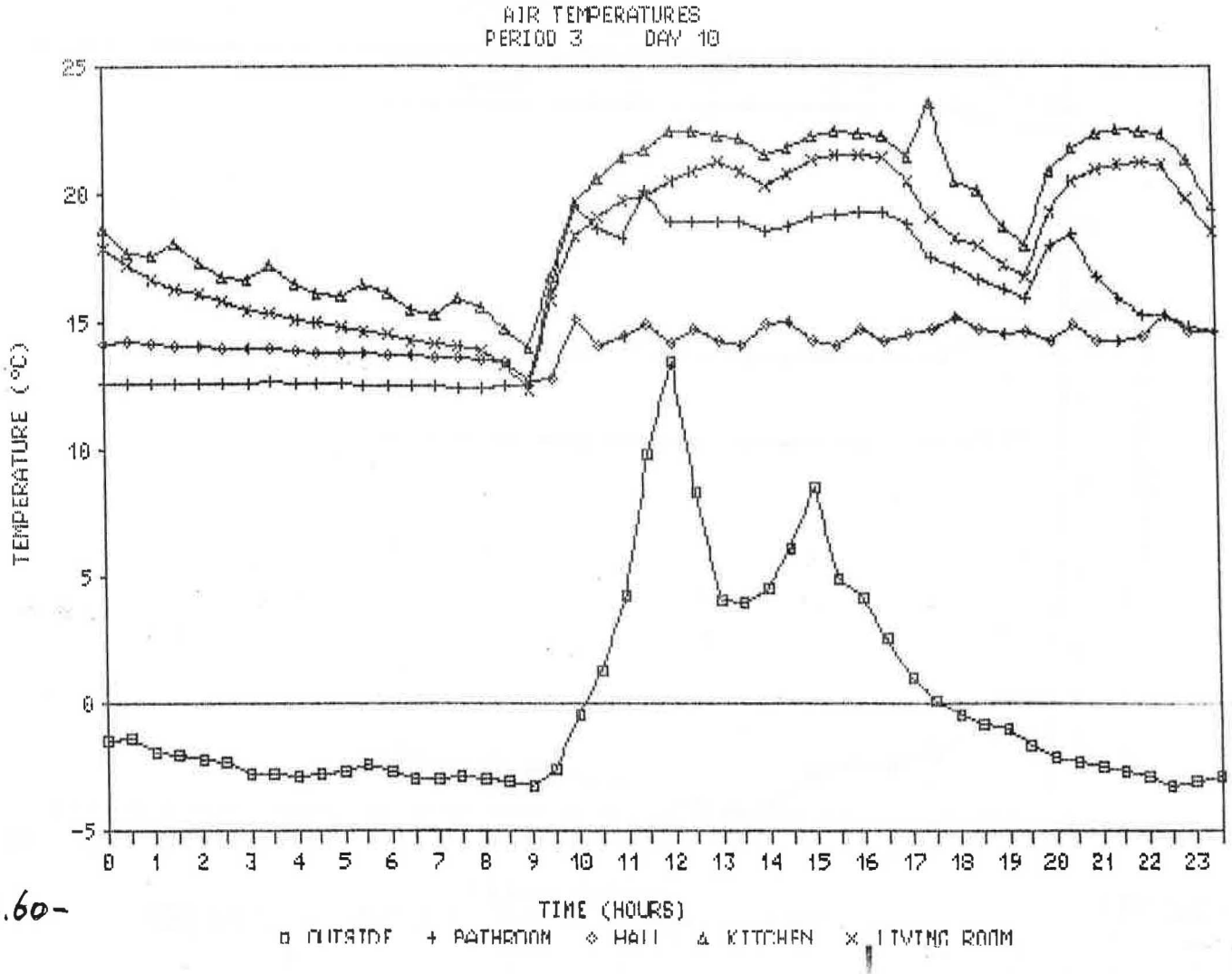

AIR TEMPERATURES
PERIOD 2 DAY 5
TEMPERATURE (°C)
25
20
15
10
5
0
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM

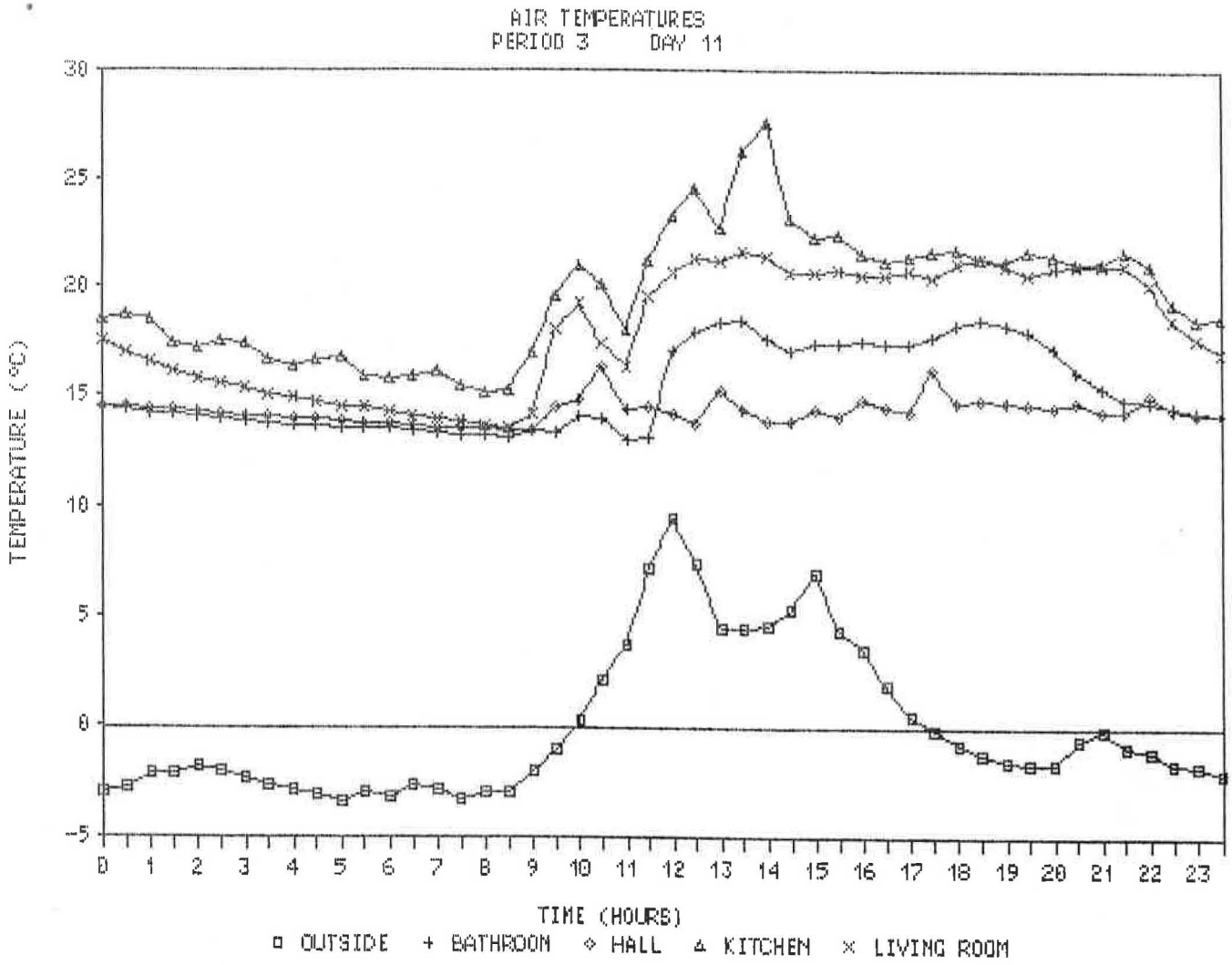

AIR TEMPERATURES
PERIOD 2 DAY 6
TEMPERATURE (°C)
30
25
20
15
10
5
0
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM

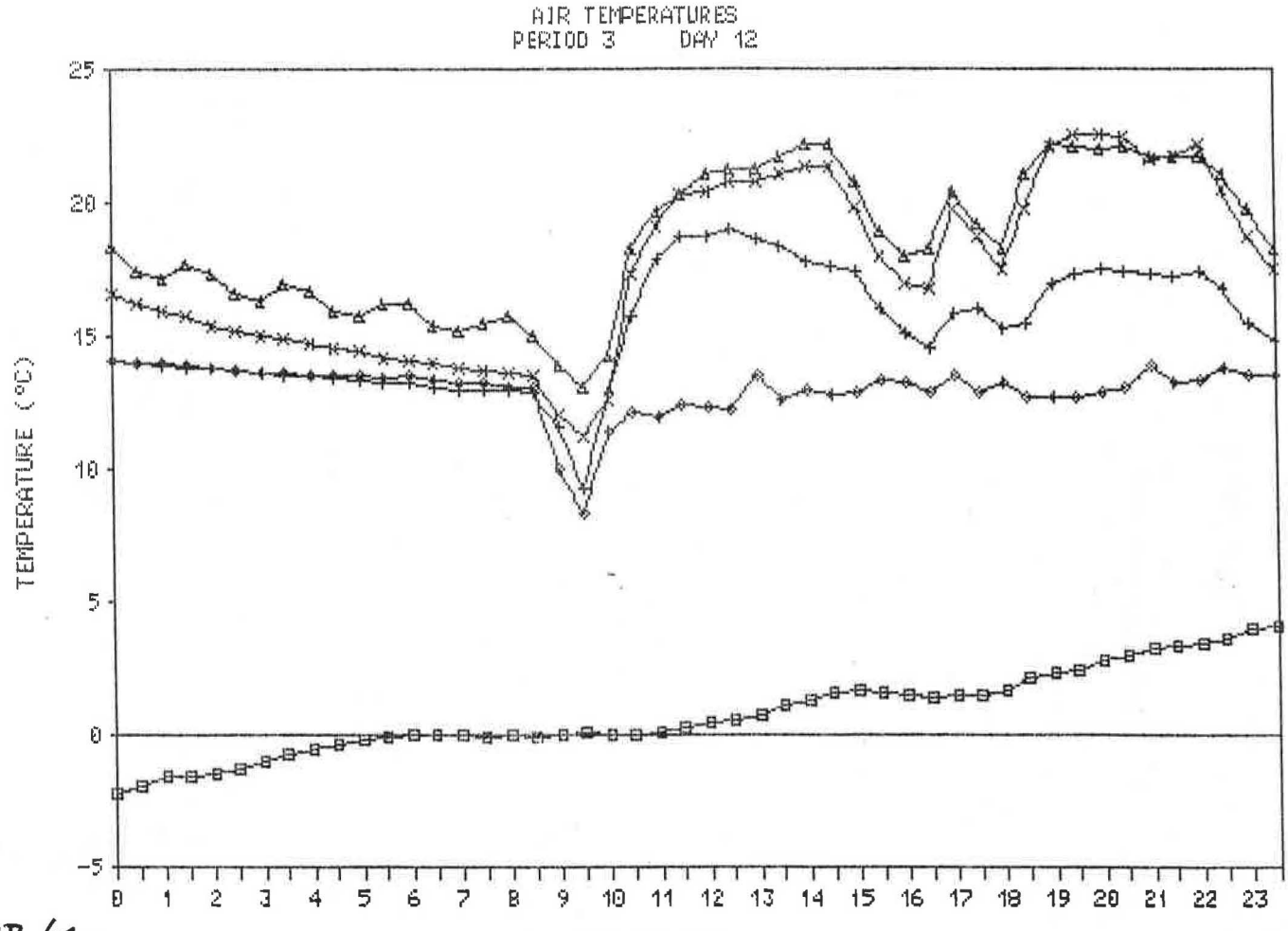

AIR TEMPERATURES
PERIOD 2 DAY 7
TEMPERATURE (°C)
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM

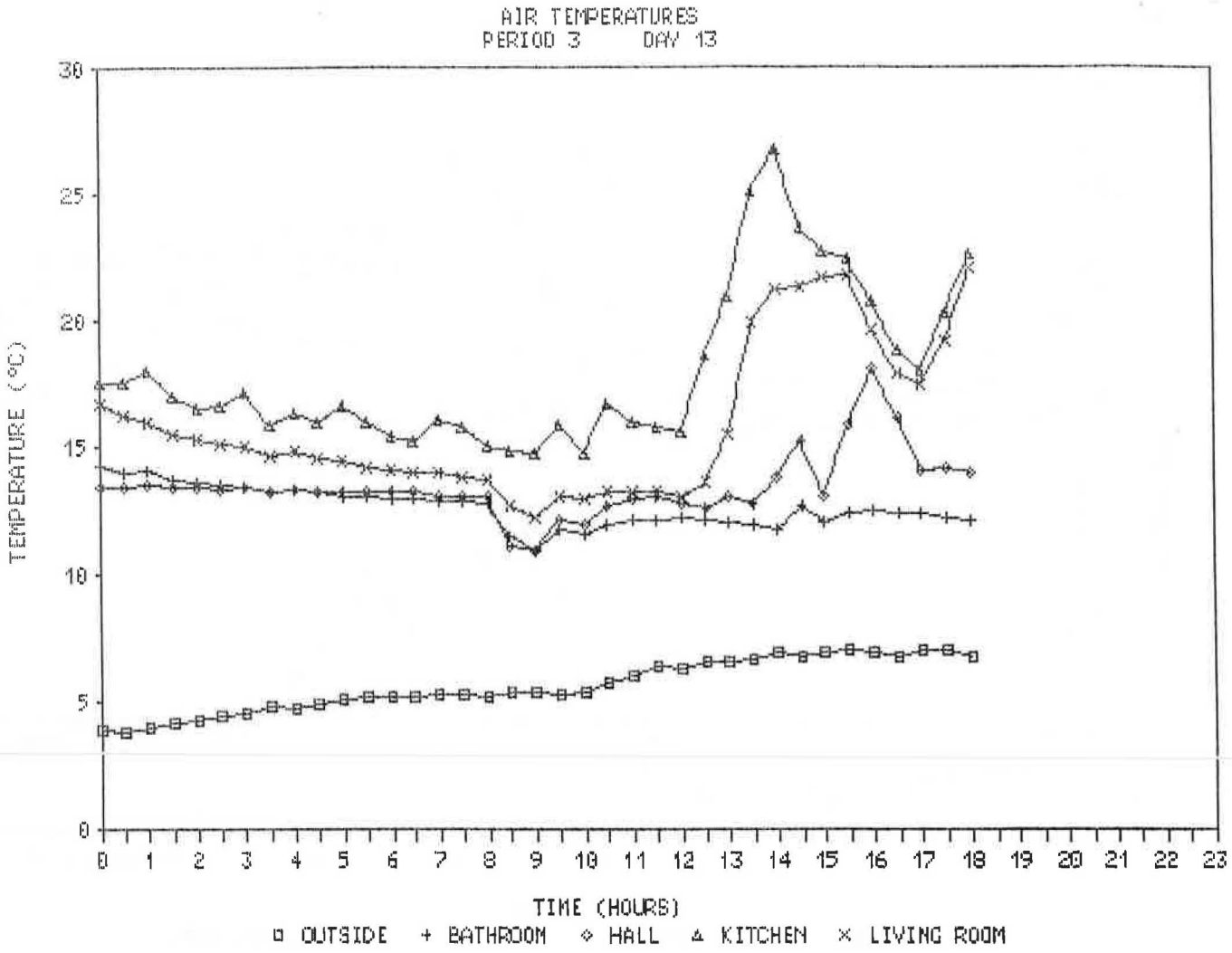

AIR TEMPERATURES
PERIOD 2 DAY 8
TEMPERATURE (°C)
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM

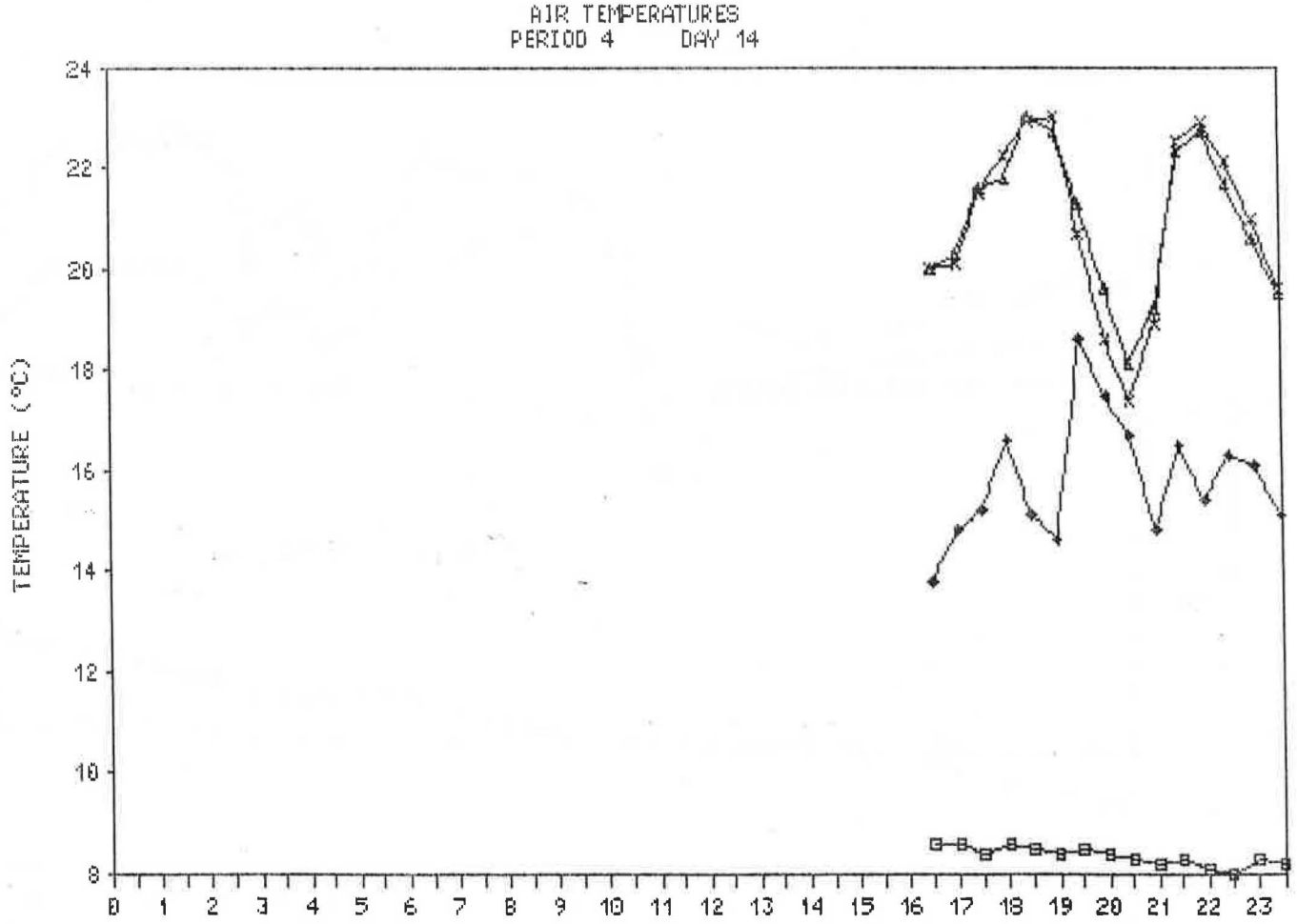

AIR TEMPERATURES
PERIOD 3 DAY 9
TEMPERATURE (°C)
25
20
15
10
5
0
-5
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM

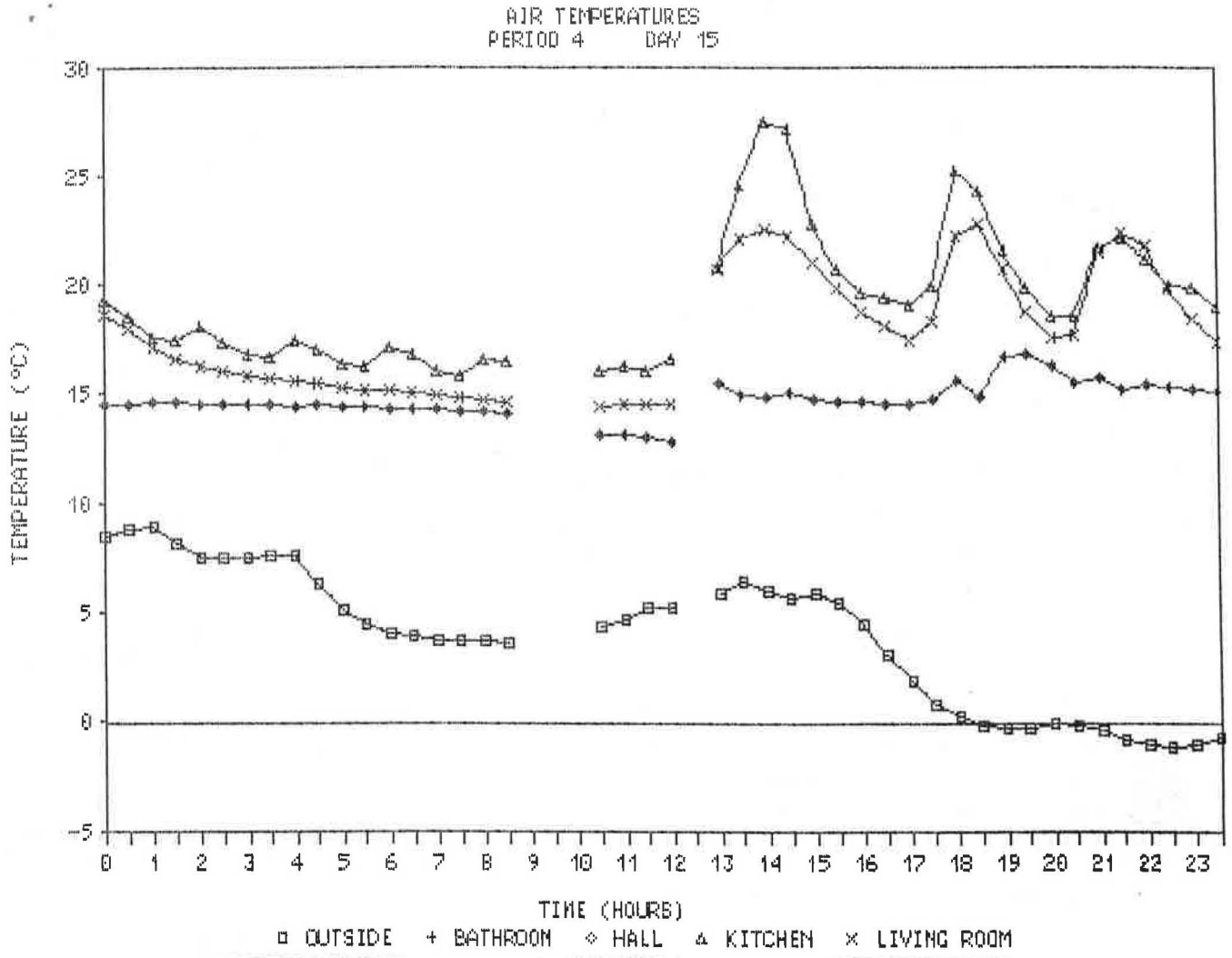

AIR TEMPERATURES
PERIOD 3 DAY 10
TEMPERATURE (°C)
25
20
15
10
5
0
-5
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM

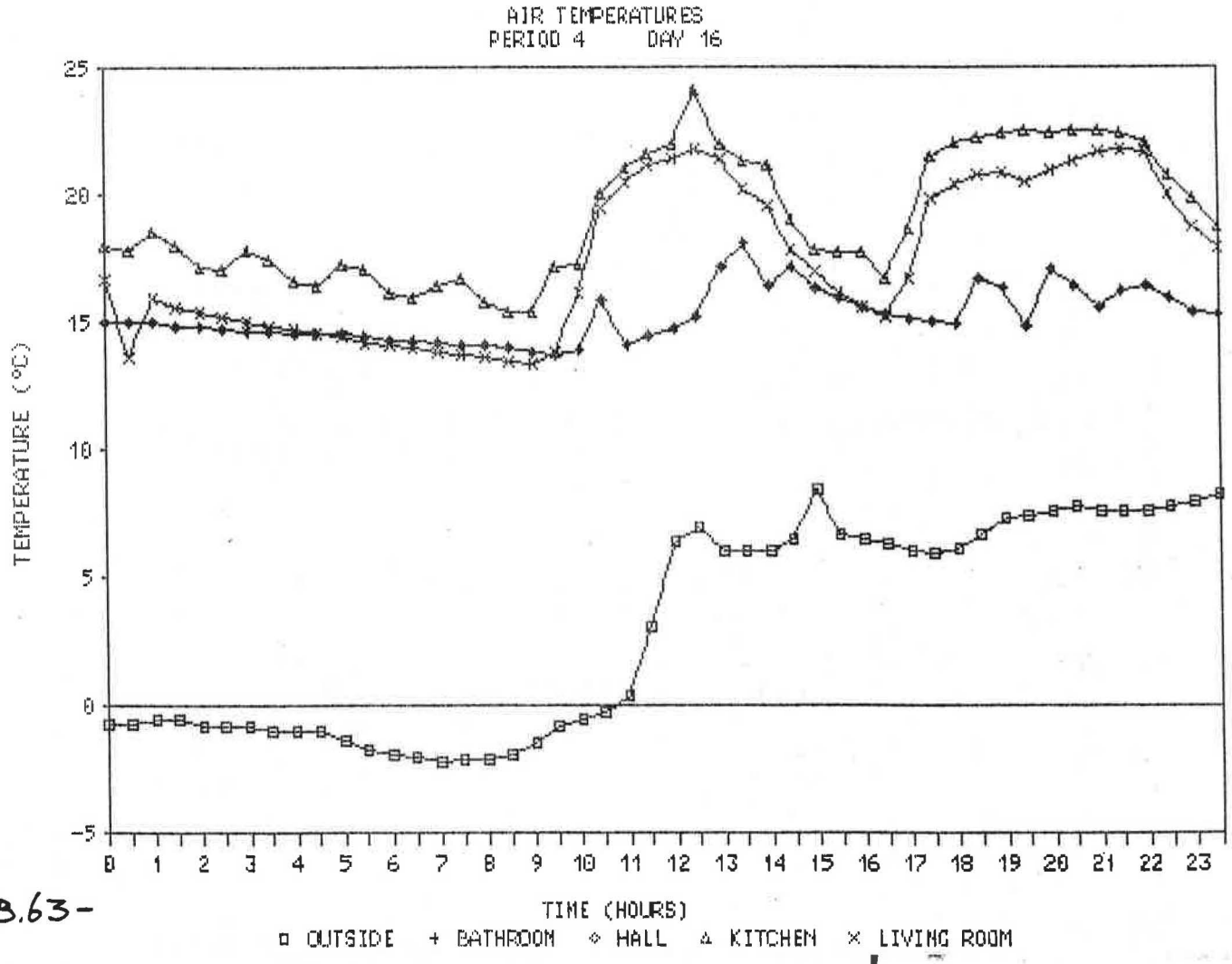

AIR TEMPERATURES
PERIOD 3 DAY 11
TEMPERATURE (°C)
30
25
20
15
10
5
0
-5
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM

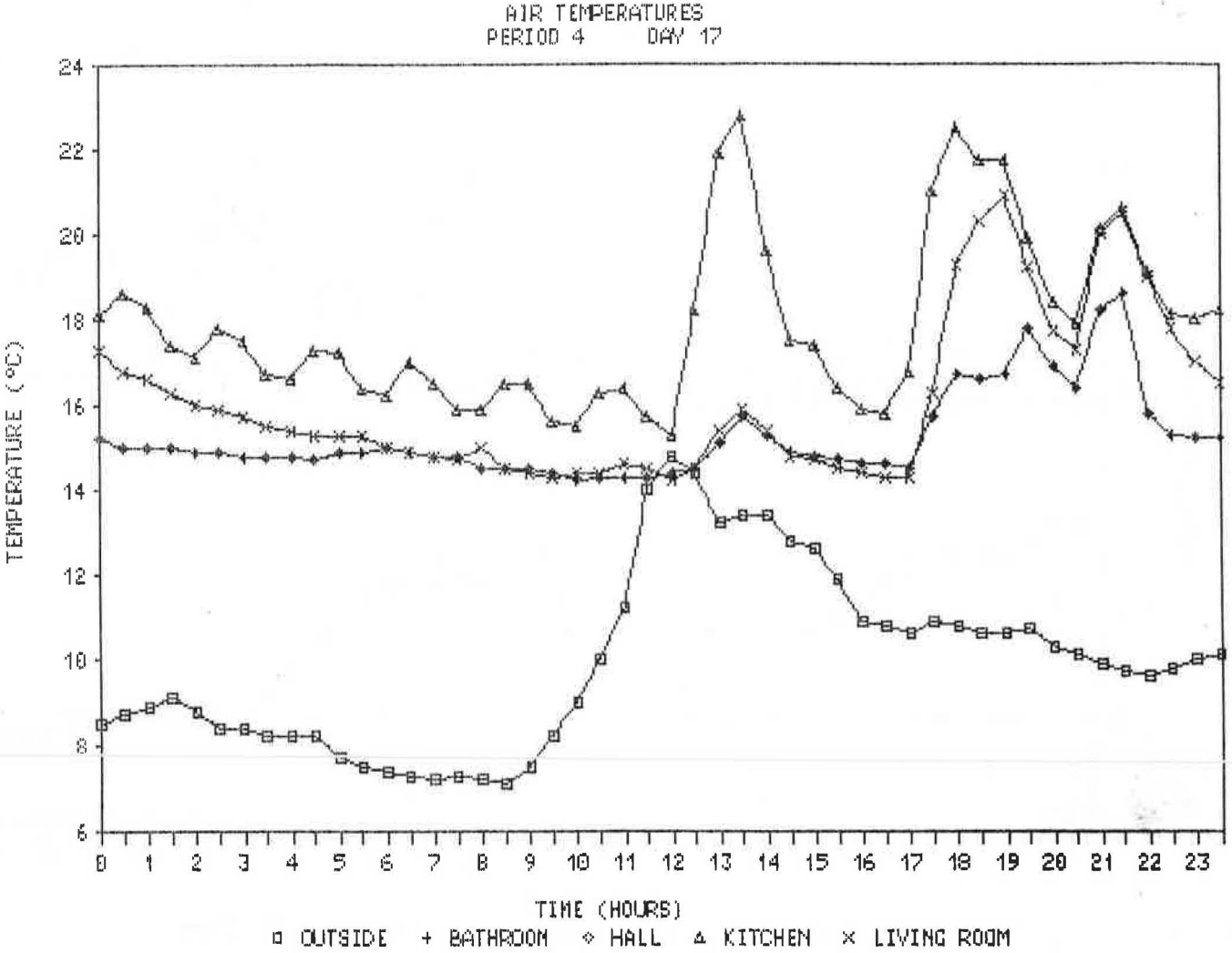

AIR TEMPERATURES
PERIOD 3 DAY 12
TEMPERATURE (°C)
25
20
15
10
5
0
-5
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM

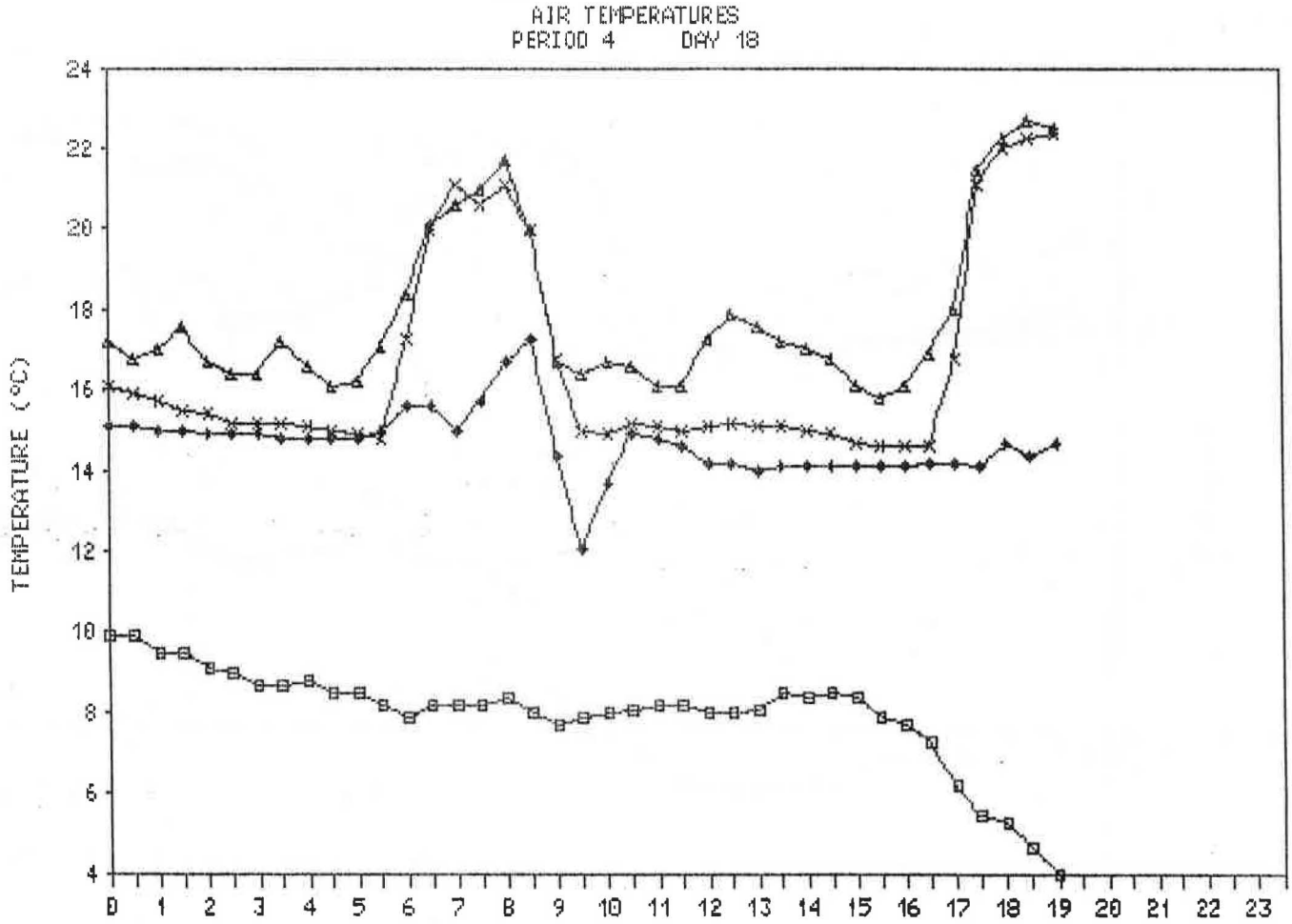

AIR TEMPERATURES
PERIOD 3 DAY 13
TEMPERATURE (°C)
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM

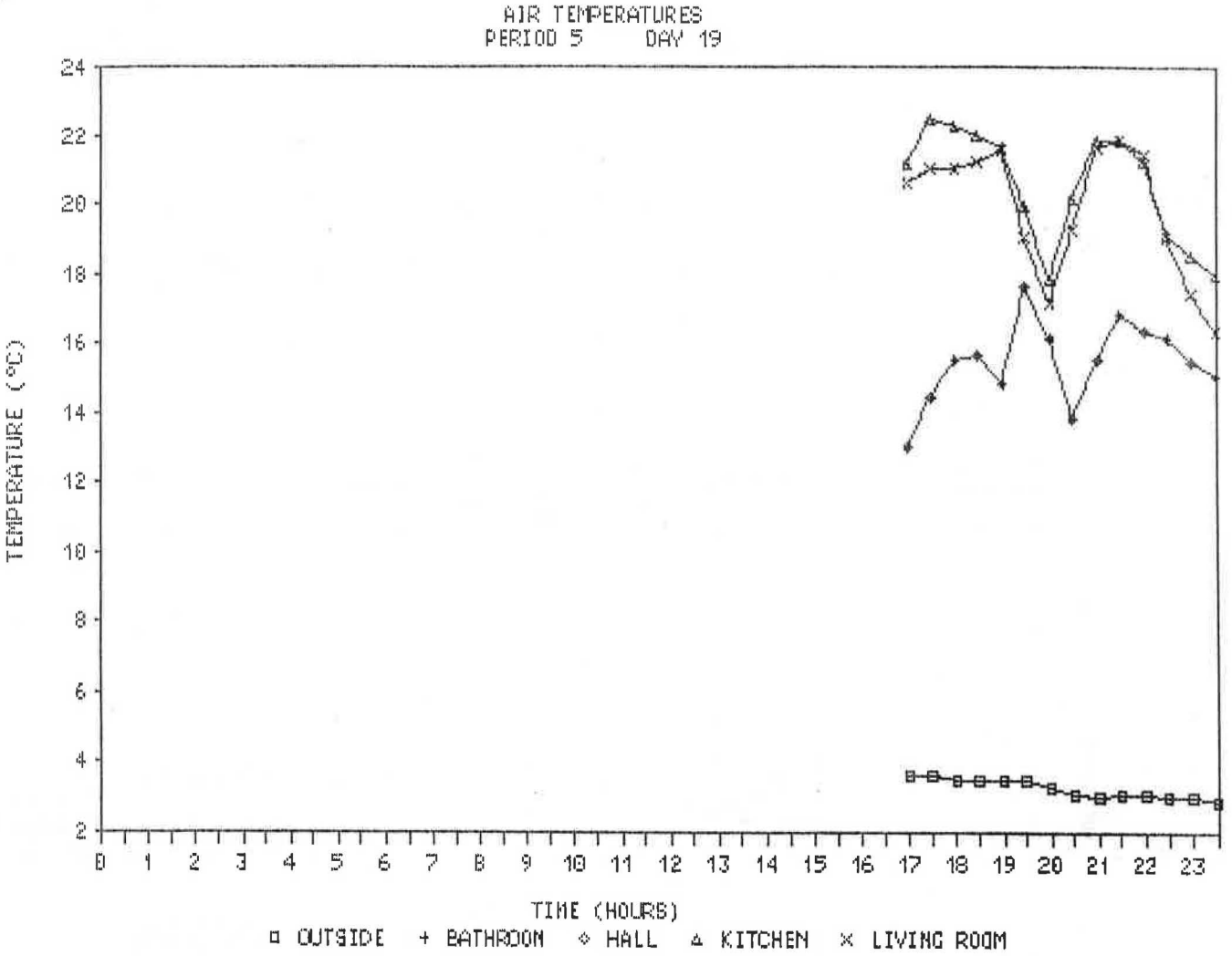

AIR TEMPERATURES
PERIOD 4 DAY 14
TEMPERATURE (°C)
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM

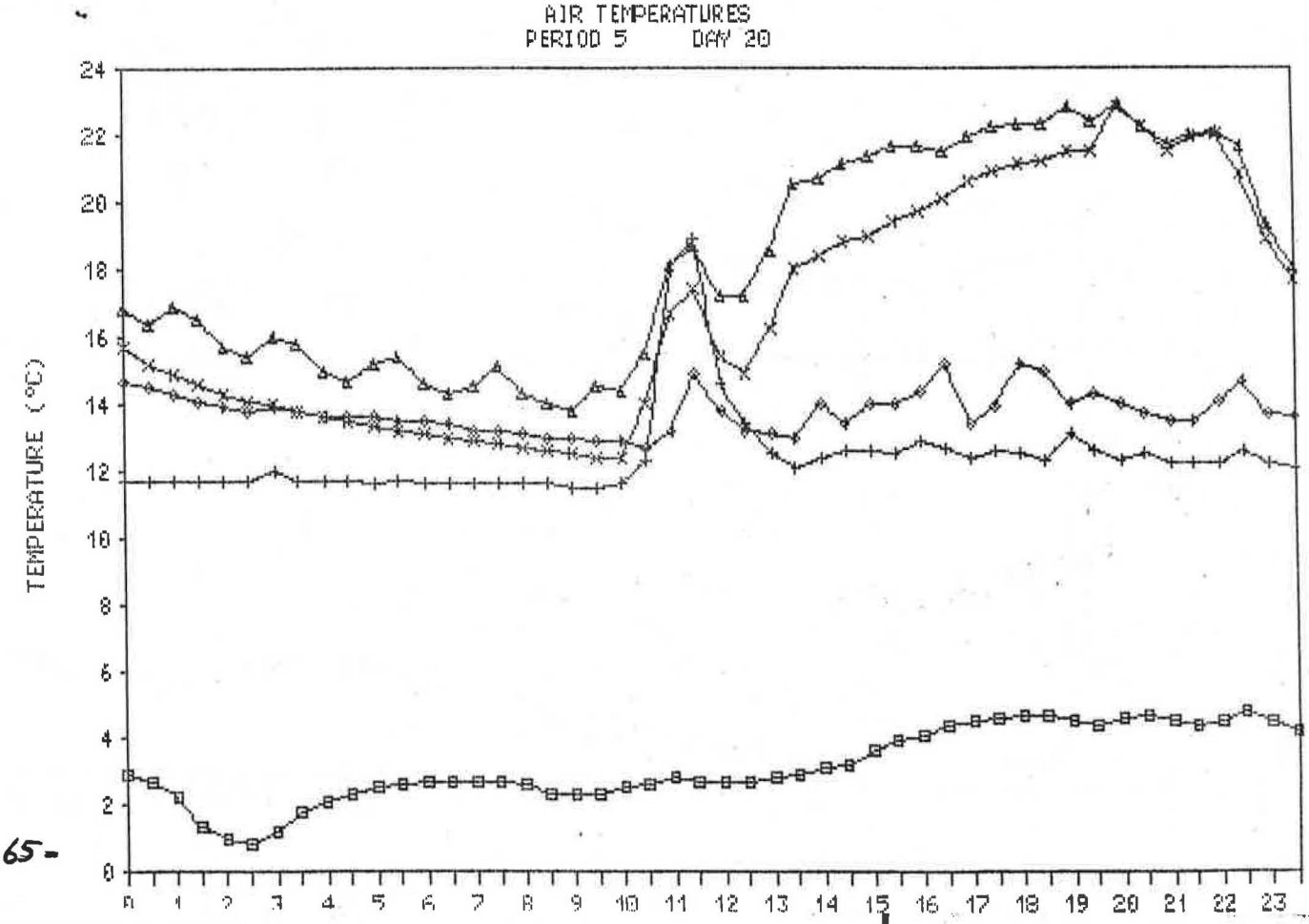

AIR TEMPERATURES
PERIOD 4 DAY 15
TEMPERATURE (°C)
30
25
20
15
10
5
0
-5
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM

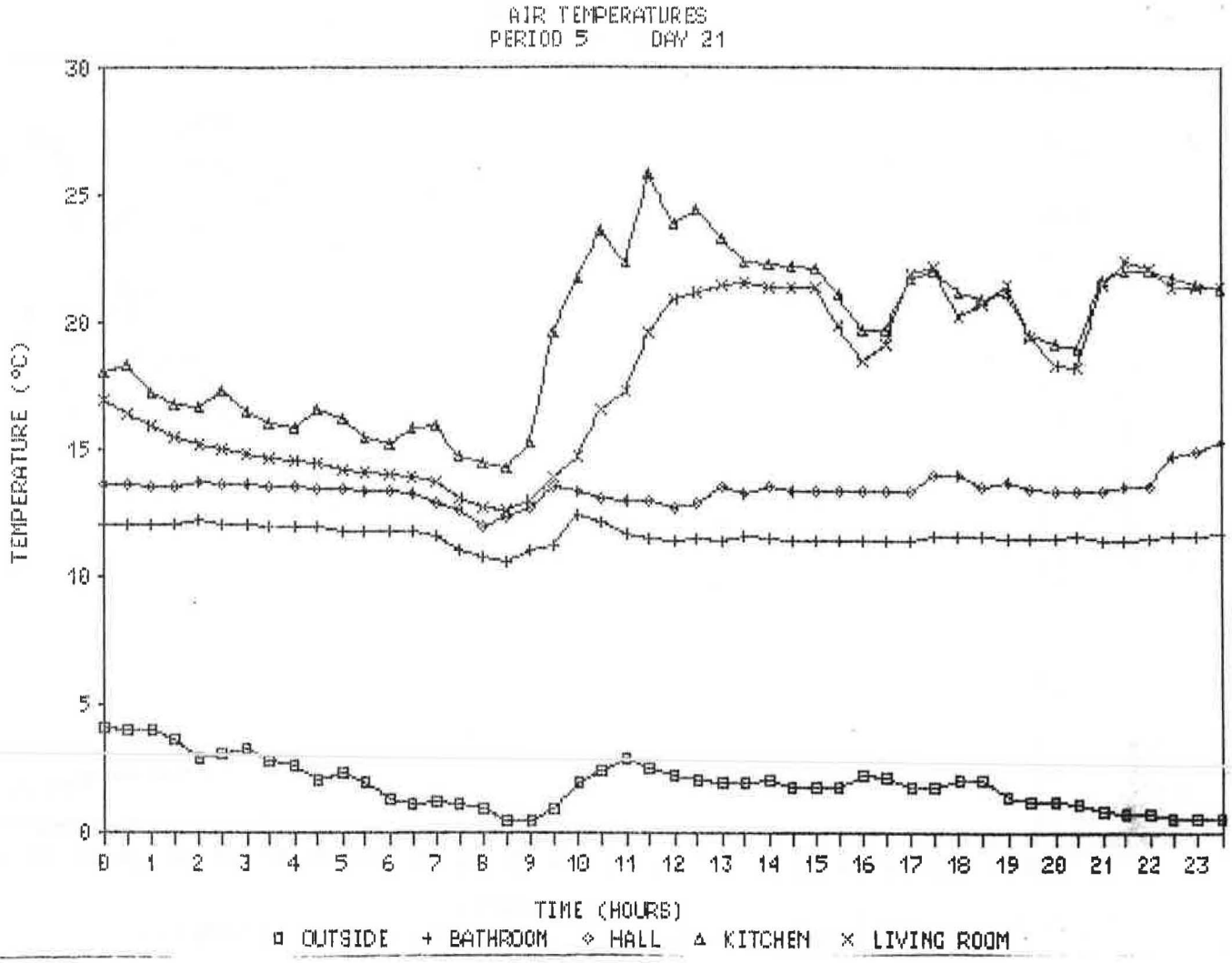

AIR TEMPERATURES
PERIOD 4 DAY 16
TEMPERATURE (°C)
25
20
15
10
5
0
-5
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM

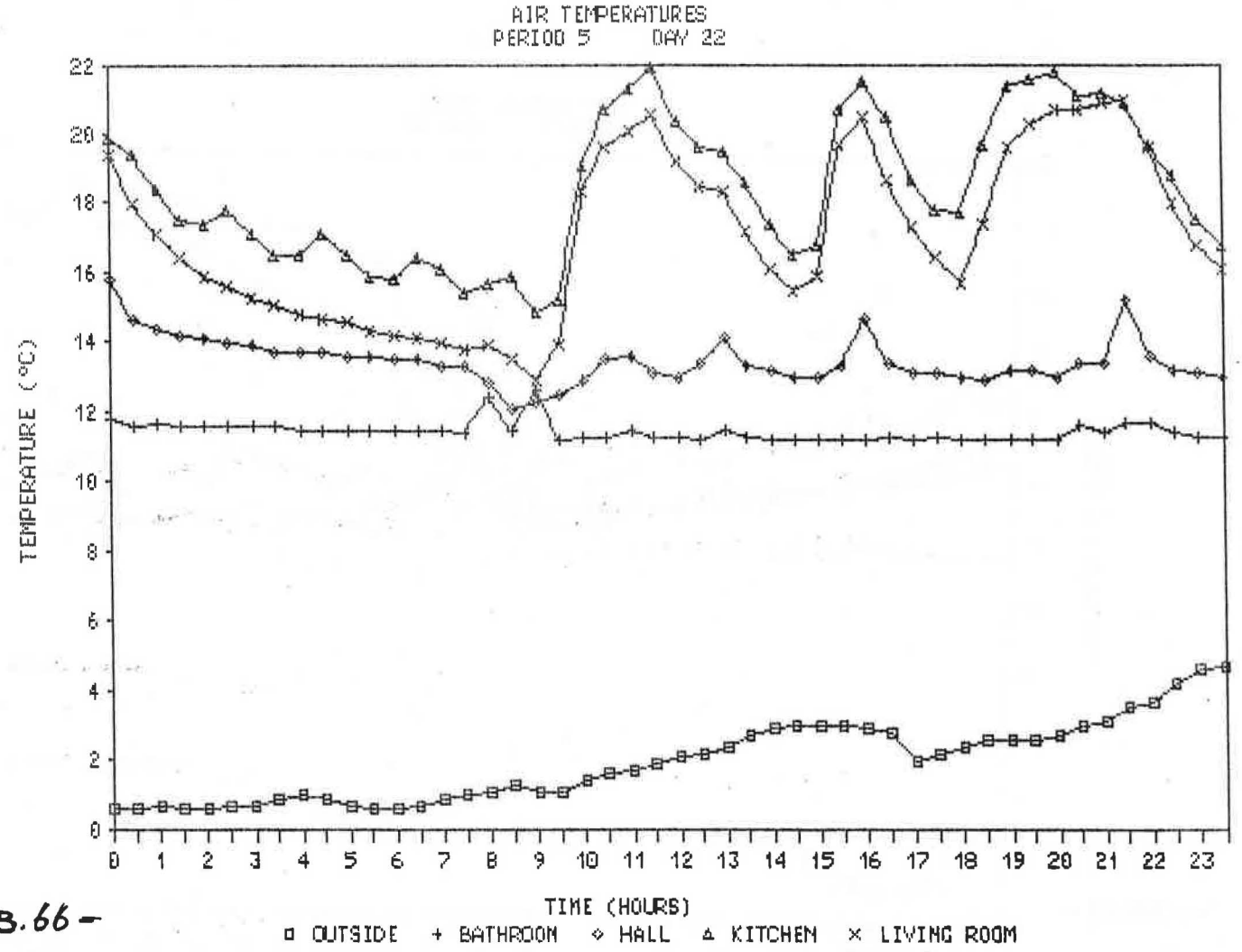

AIR TEMPERATURES
PERIOD 4 DAY 17
TEMPERATURE (°C)
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM

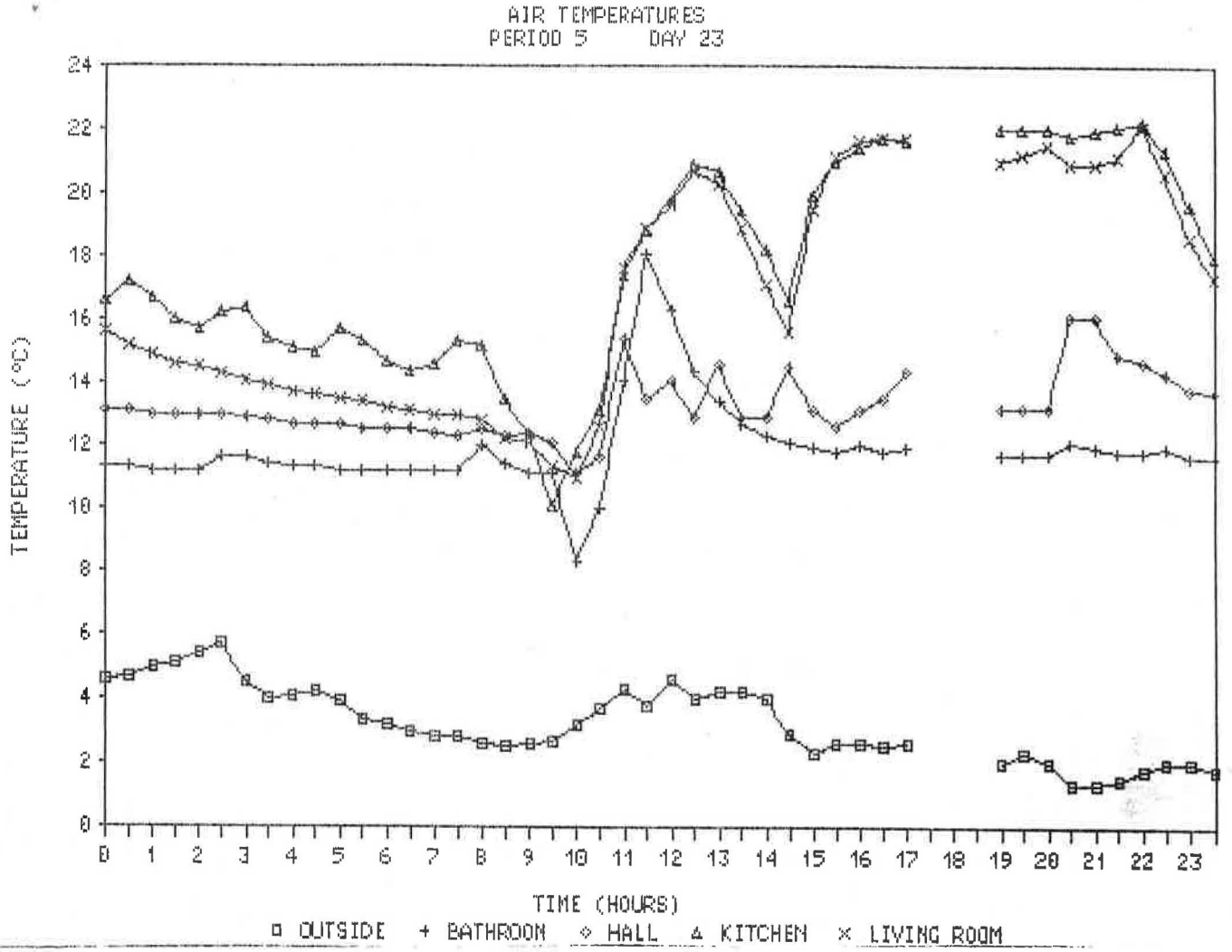

AIR TEMPERATURES
PERIOD 4 DAY 18
TEMPERATURE (°C)
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM

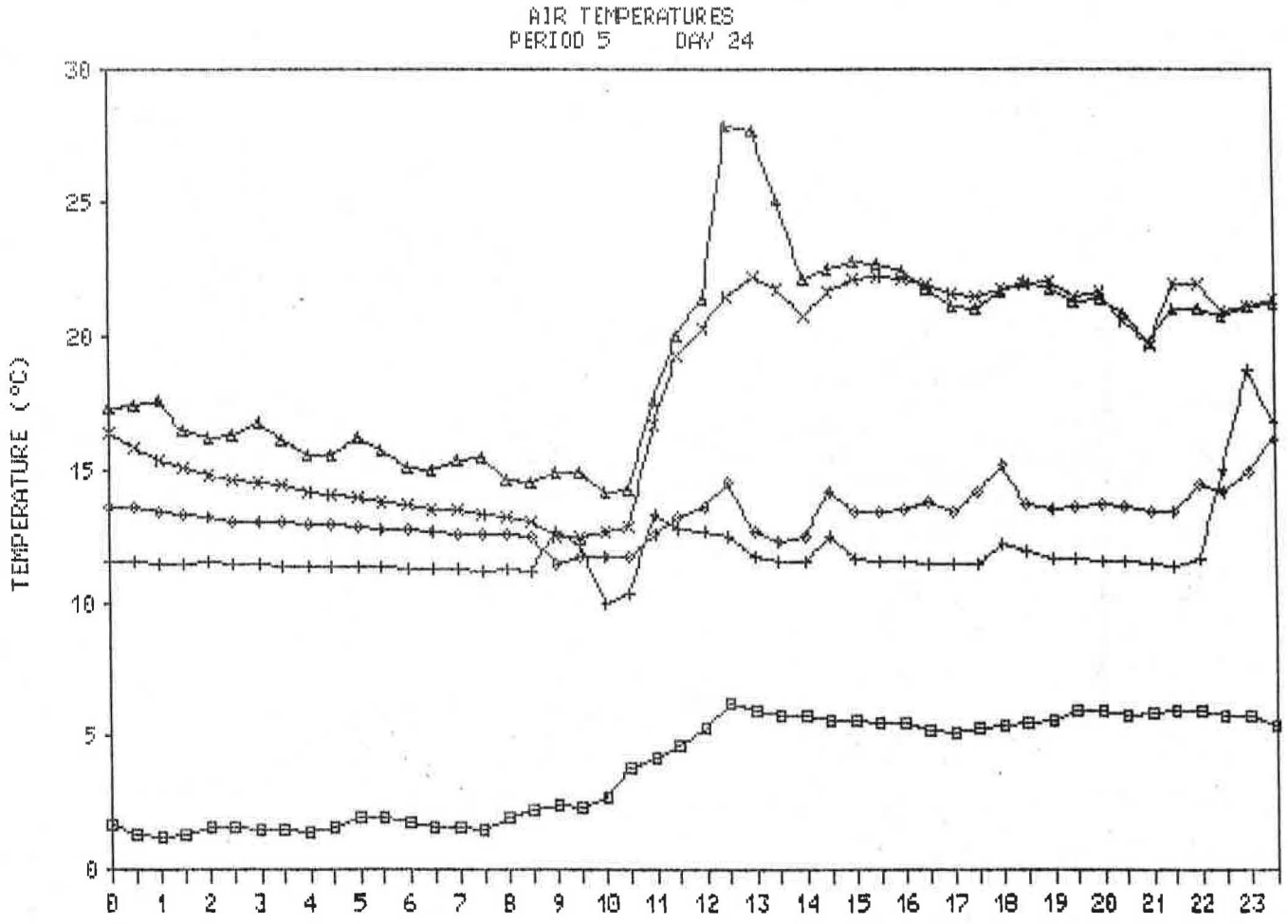

AIR TEMPERATURES
PERIOD 5 DAY 19
TEMPERATURE (°C)
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM


AIR TEMPERATURES
PERIOD 5 DAY 20
TEMPERATURE (°C)

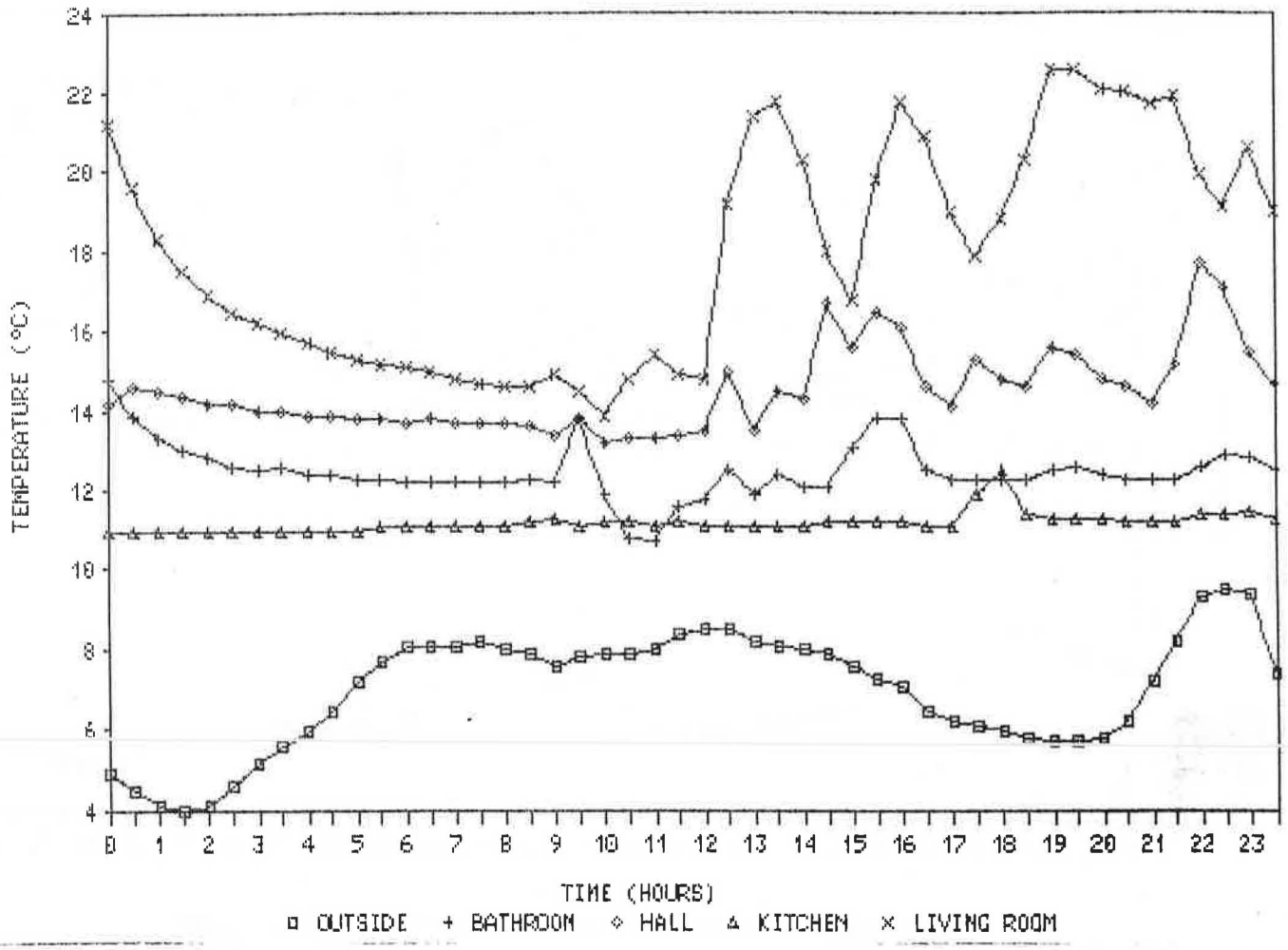

AIR TEMPERATURES
PERIOD 5 DAY 21
TEMPERATURE (°C)
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM


AIR TEMPERATURES
PERIOD 5 DAY 22
TEMPERATURE (°C)
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM

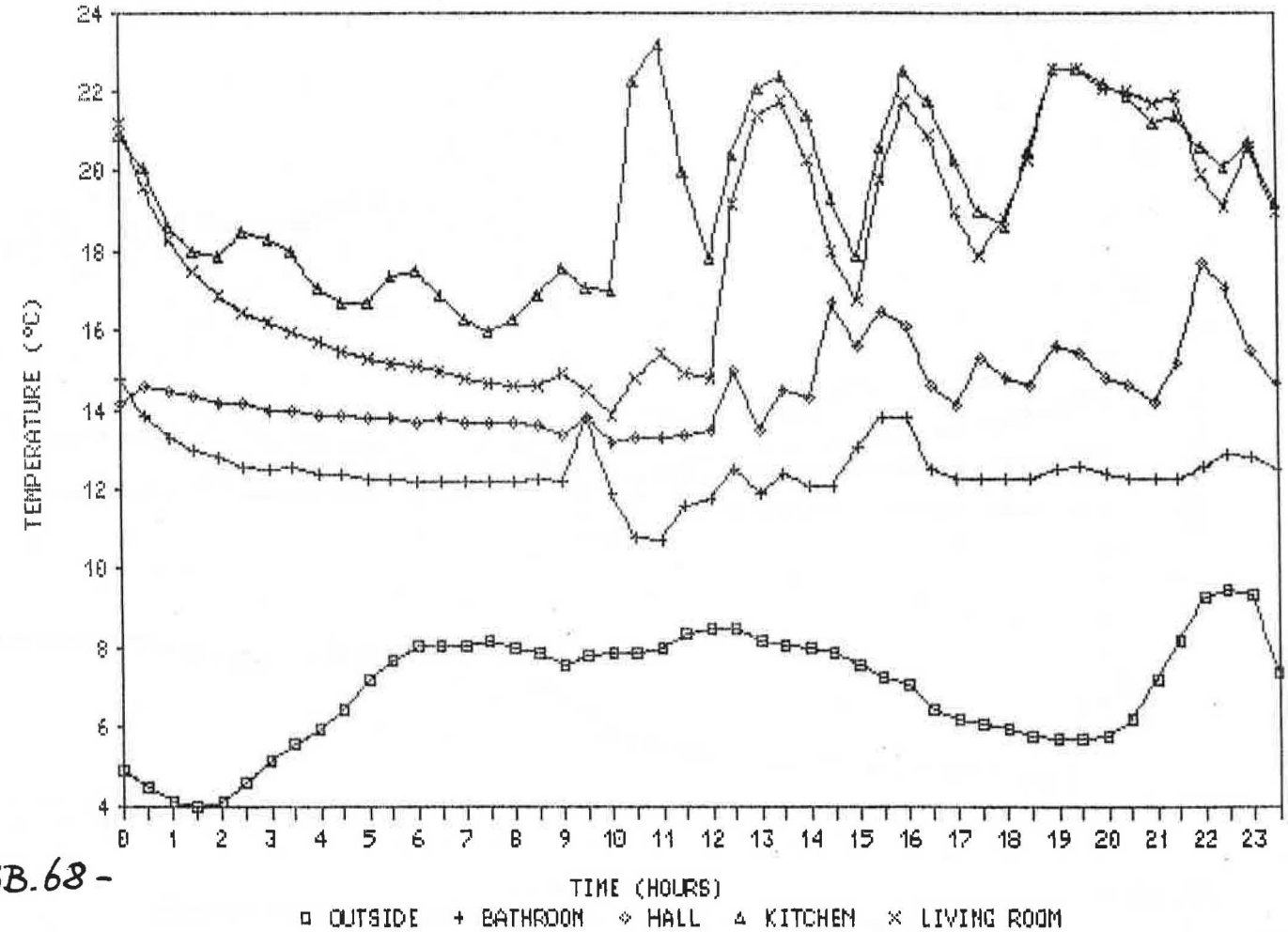

AIR TEMPERATURES
PERIOD 5 DAY 23
TEMPERATURE (°C)
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM

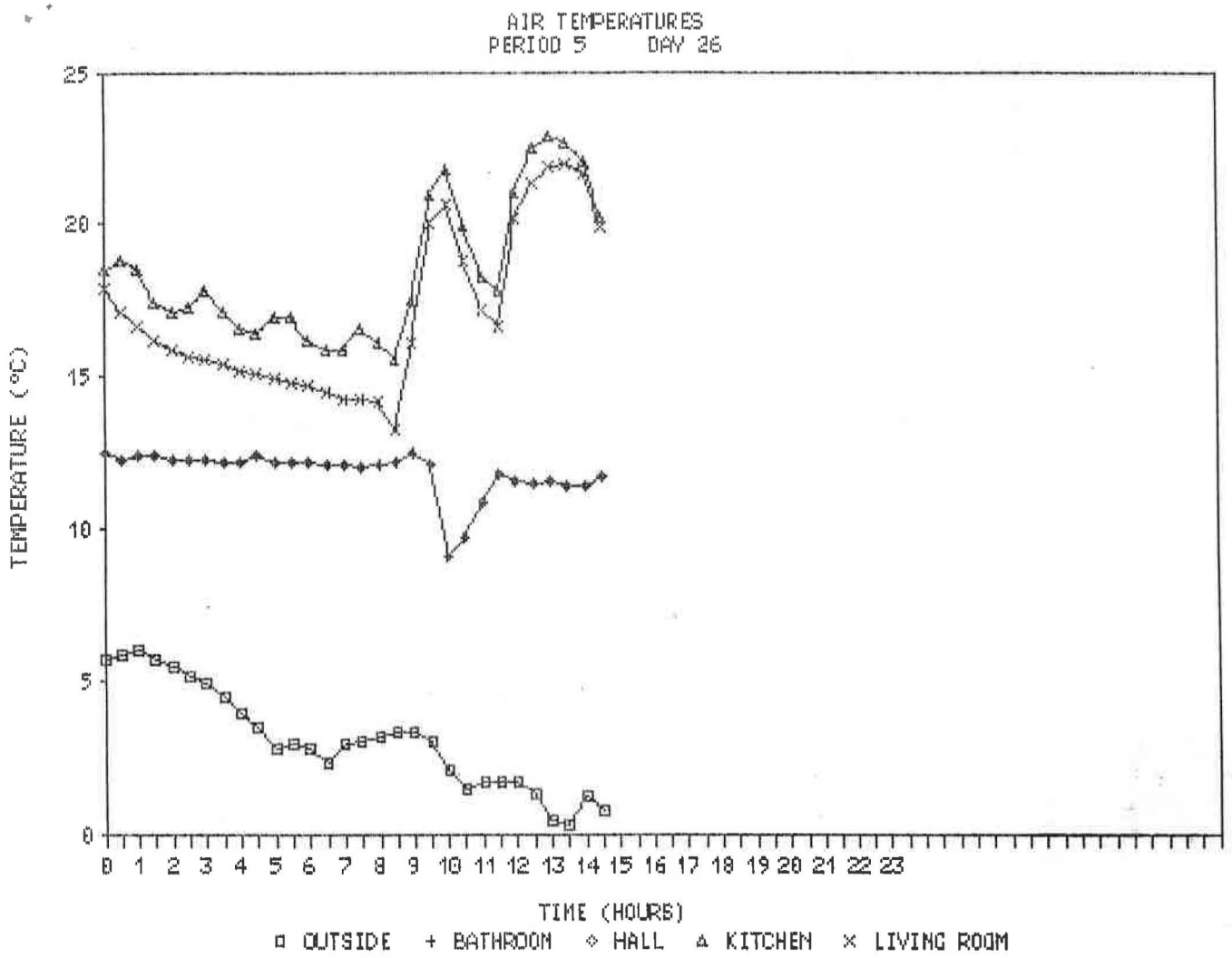

AIR TEMPERATURES
PERIOD 5 DAY 24
TEMPERATURE (°C)
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM

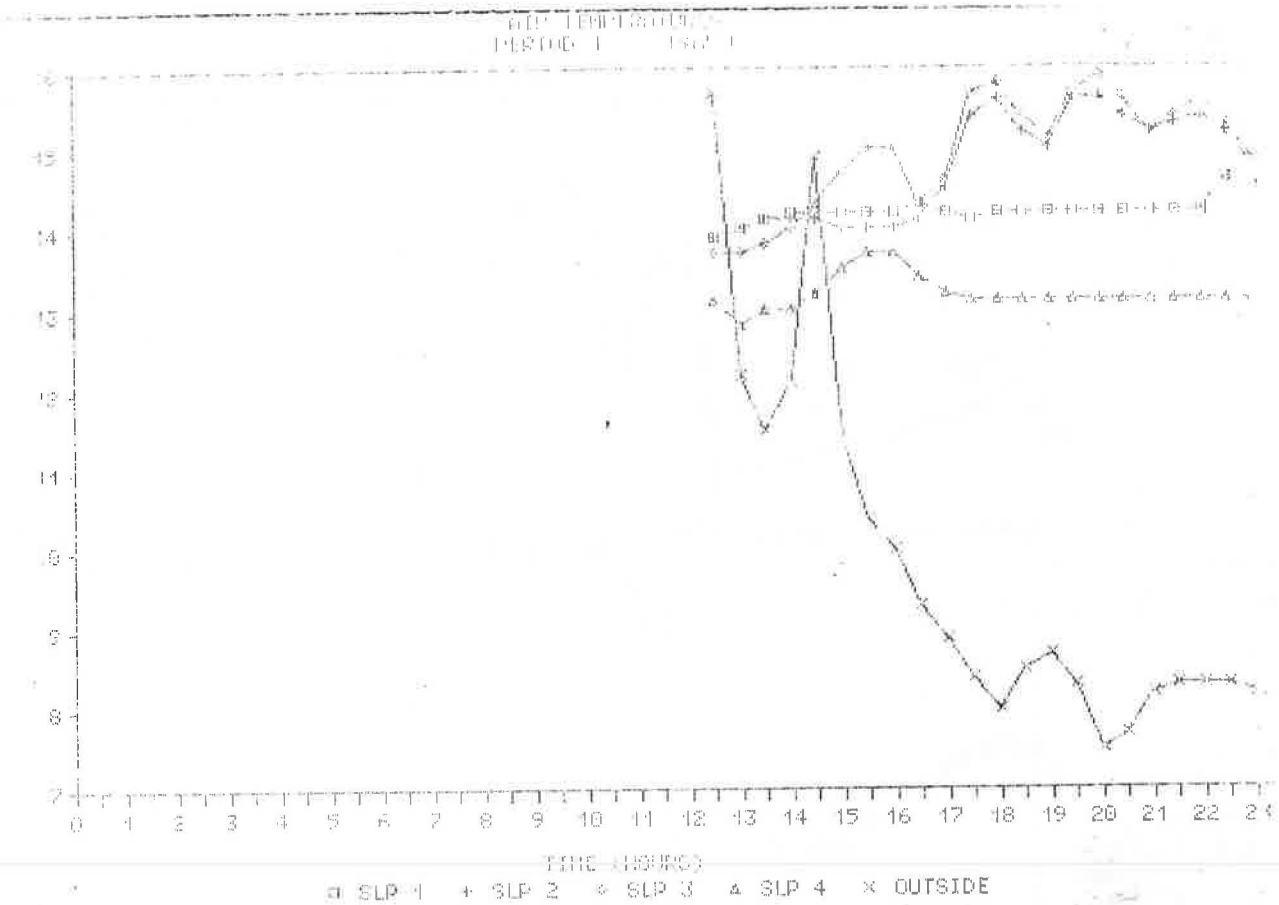
AIR TEMPERATURES
PERIOD 5 DAY 25

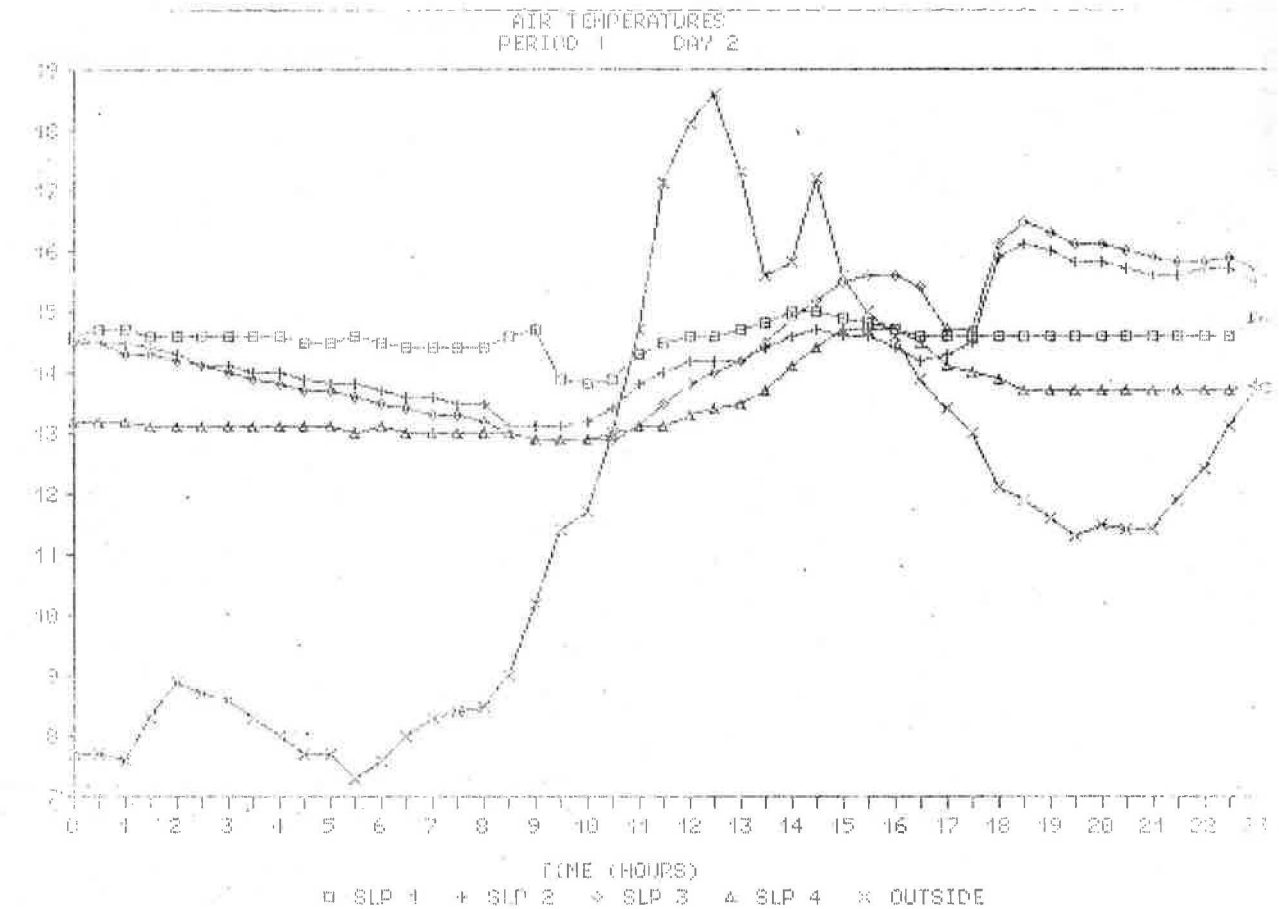


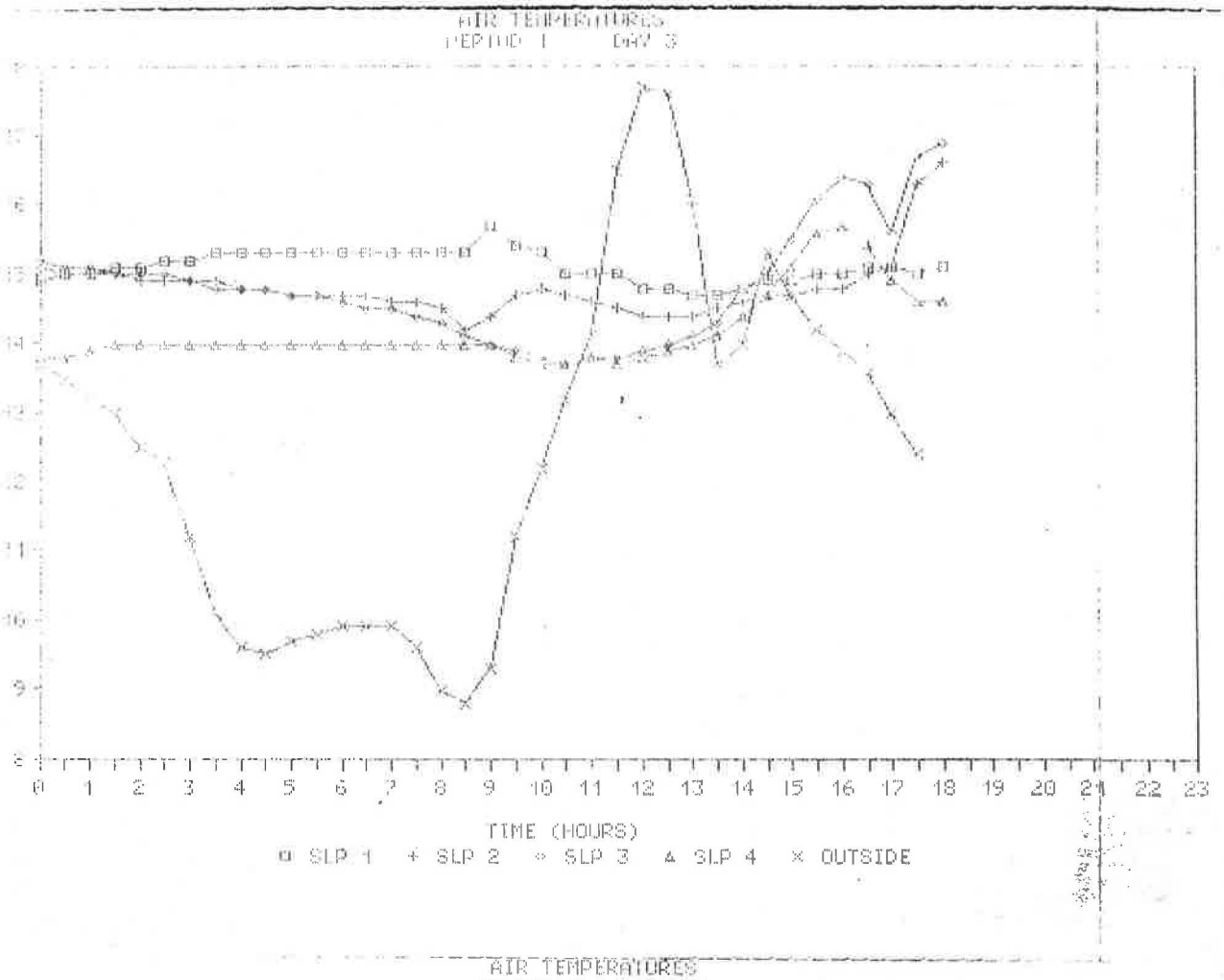
AIR TEMPERATURES
PERIOD 5 DAY 25

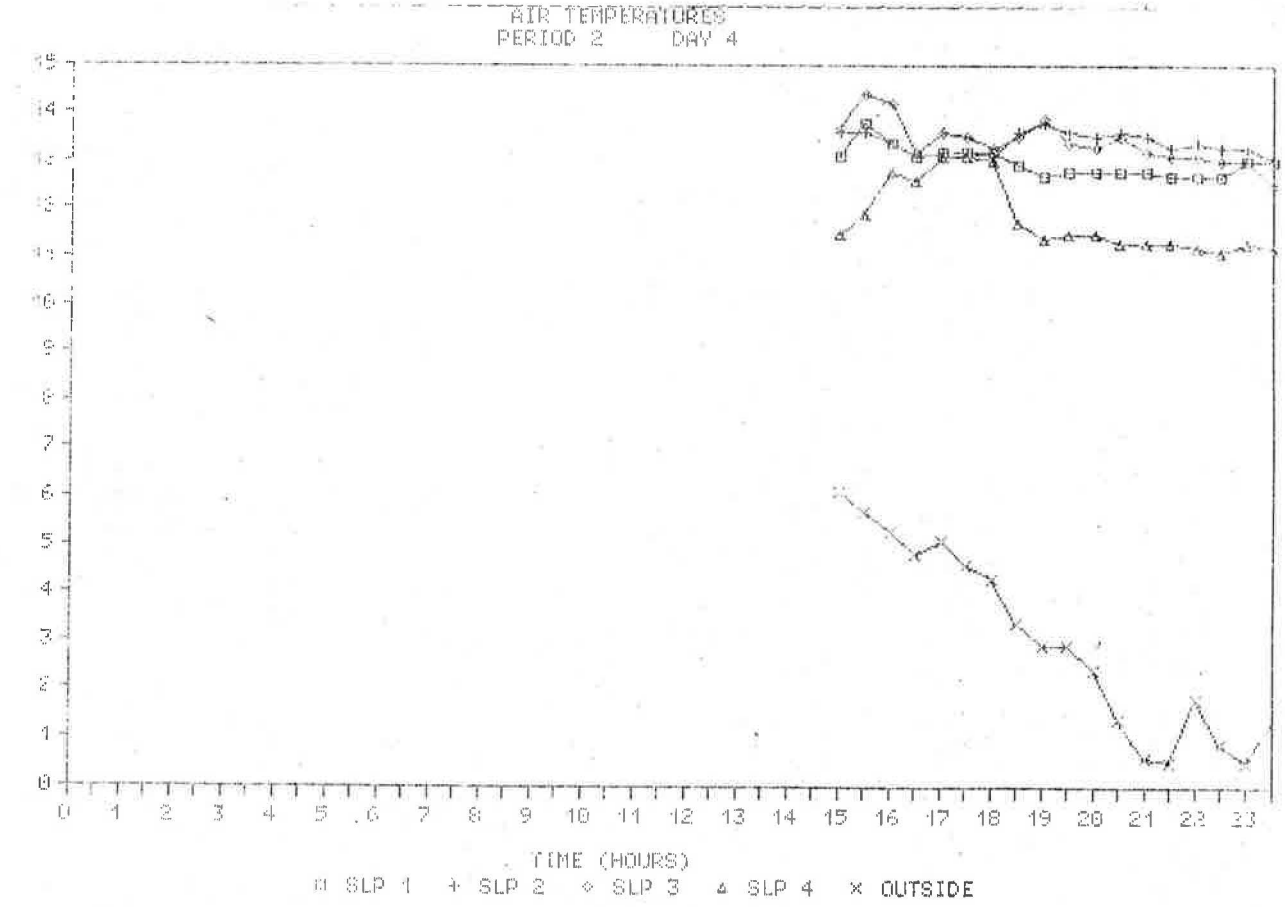


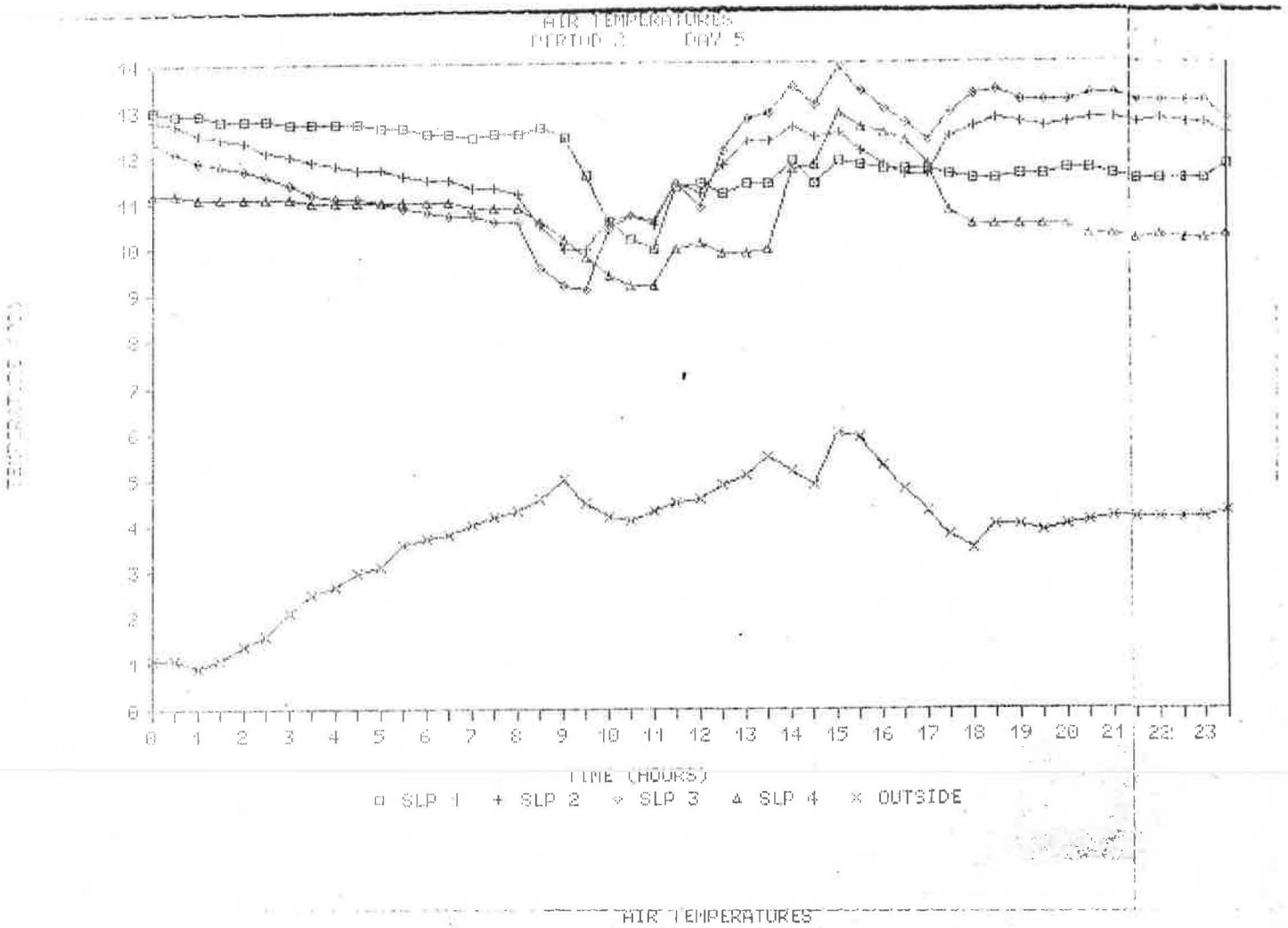

AIR TEMPERATURES
PERIOD 5 DAY 26
TEMPERATURE (°C)
25
20
15
10
5
0
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
TIME (HOURS)
□ OUTSIDE + BATHROOM ◇ HALL △ KITCHEN × LIVING ROOM

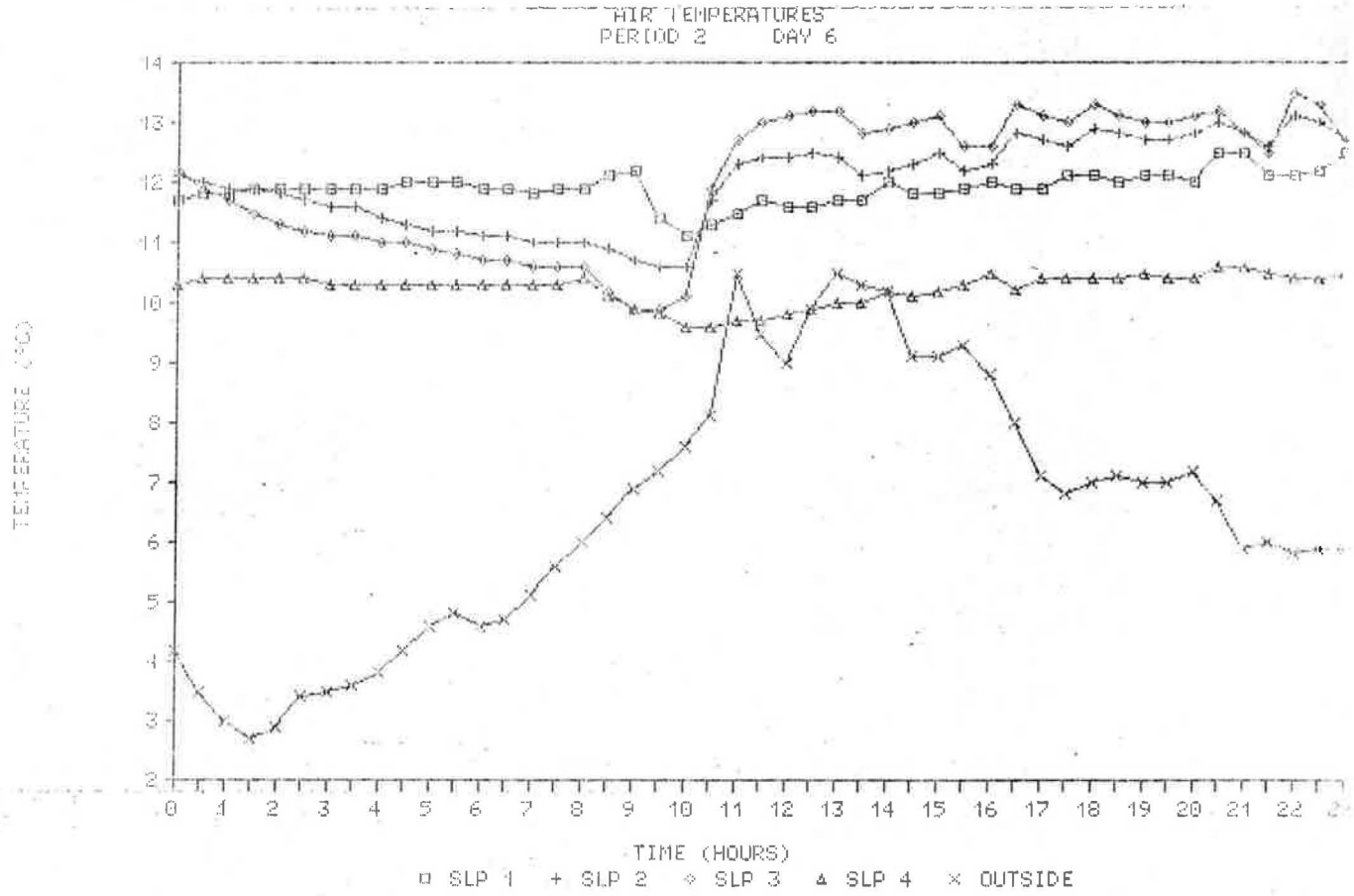

TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE

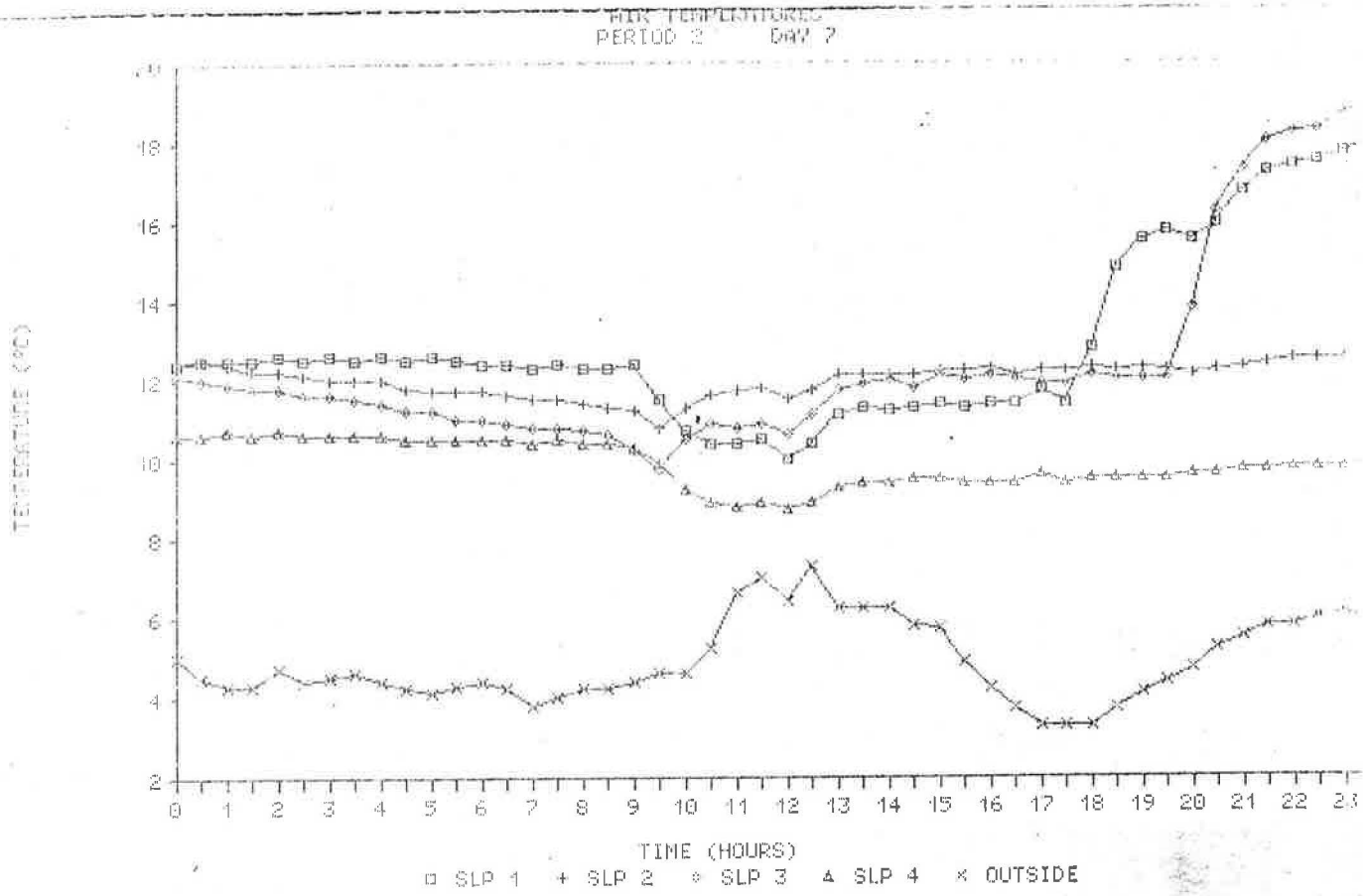

AIR TEMPERATURES
PERIOD 1 DAY 2
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE

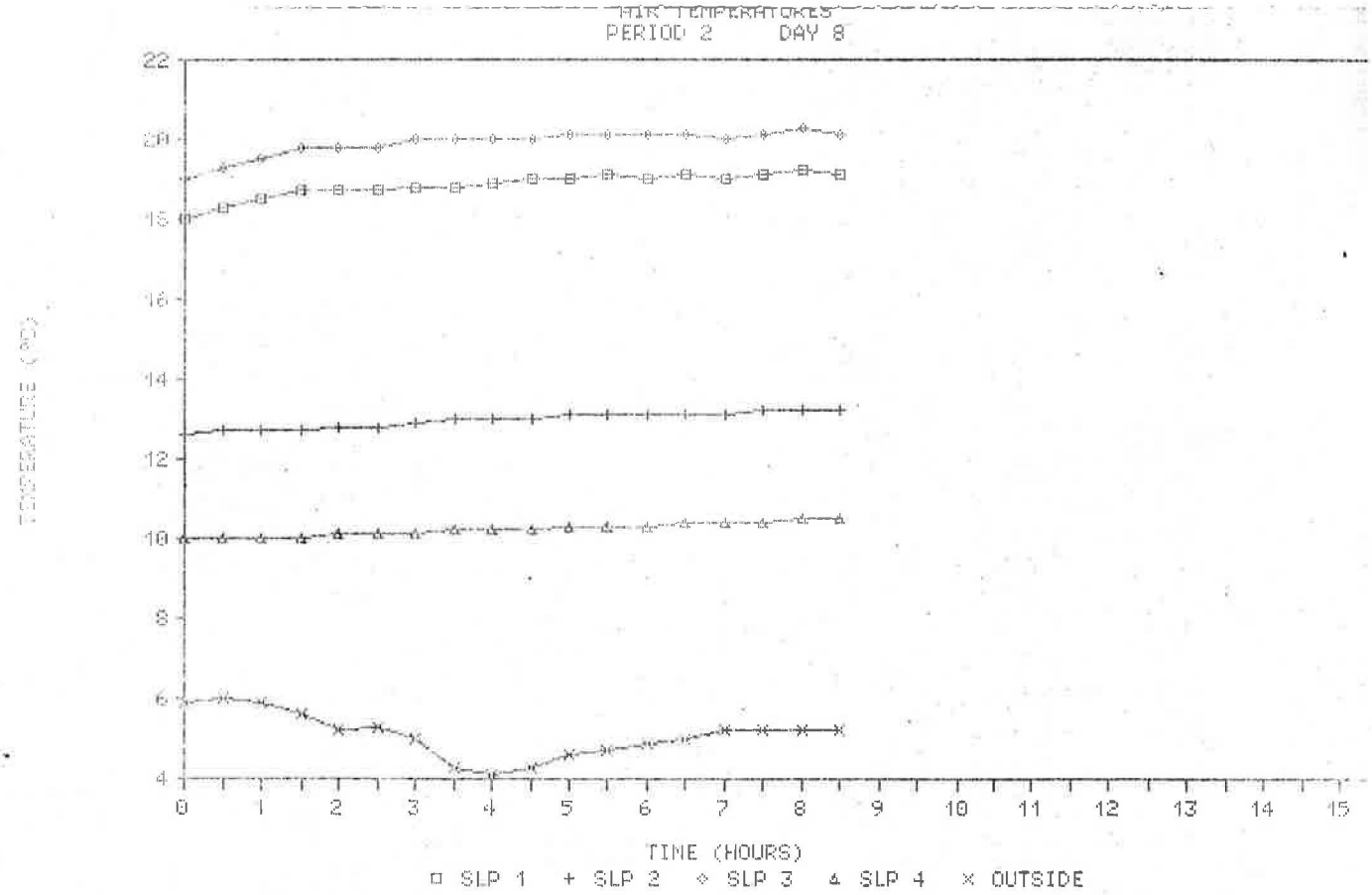

AIR TEMPERATURES
PERIOD 1 DAY 3
TIME (HOURS)
SLP 1 SLP 2 SLP 3 SLP 4 OUTSIDE

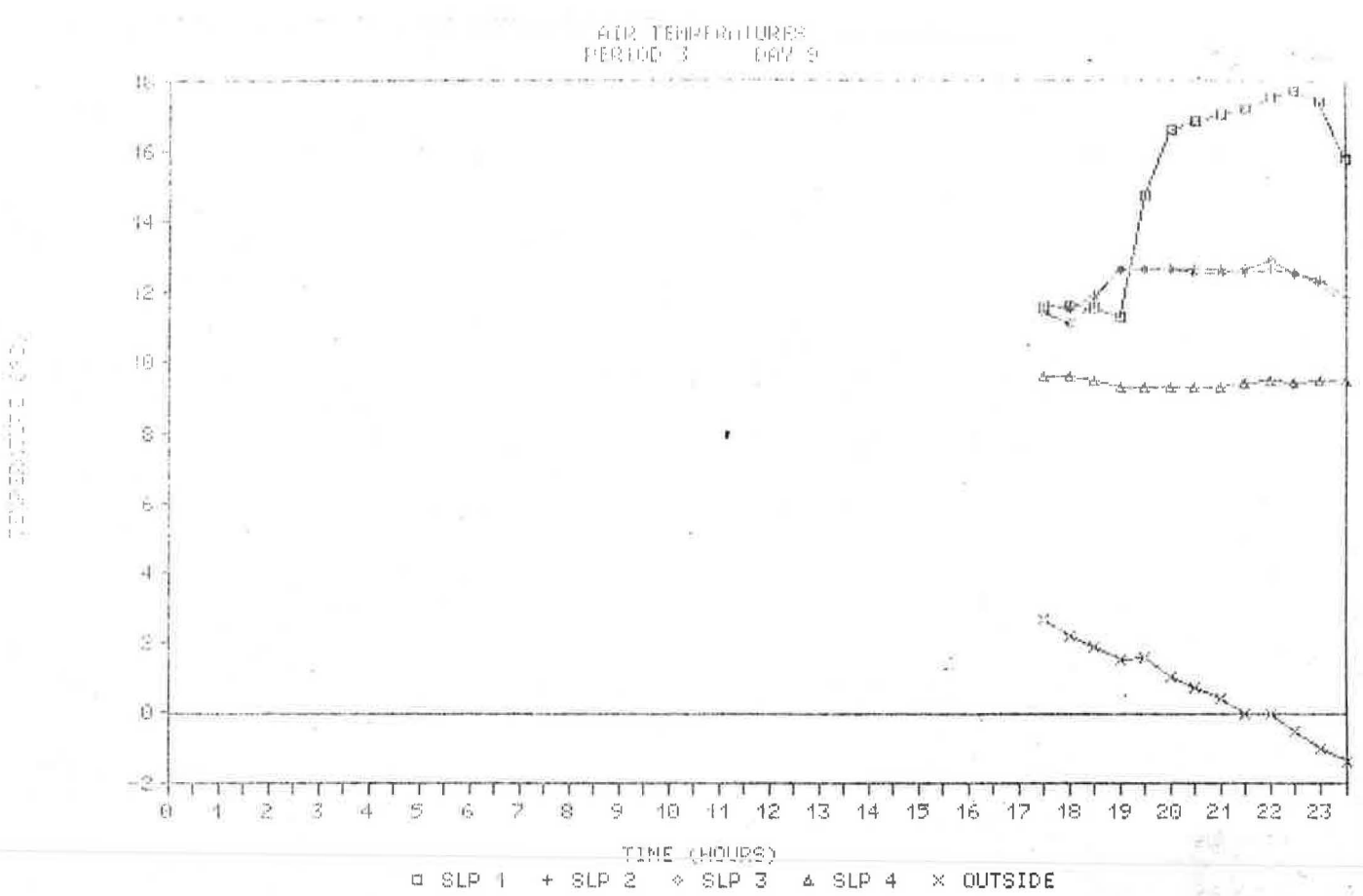

AIR TEMPERATURES
PERIOD 2 DAY 4
TIME (HOURS)
SLP 1 SLP 2 SLP 3 SLP 4 OUTSIDE

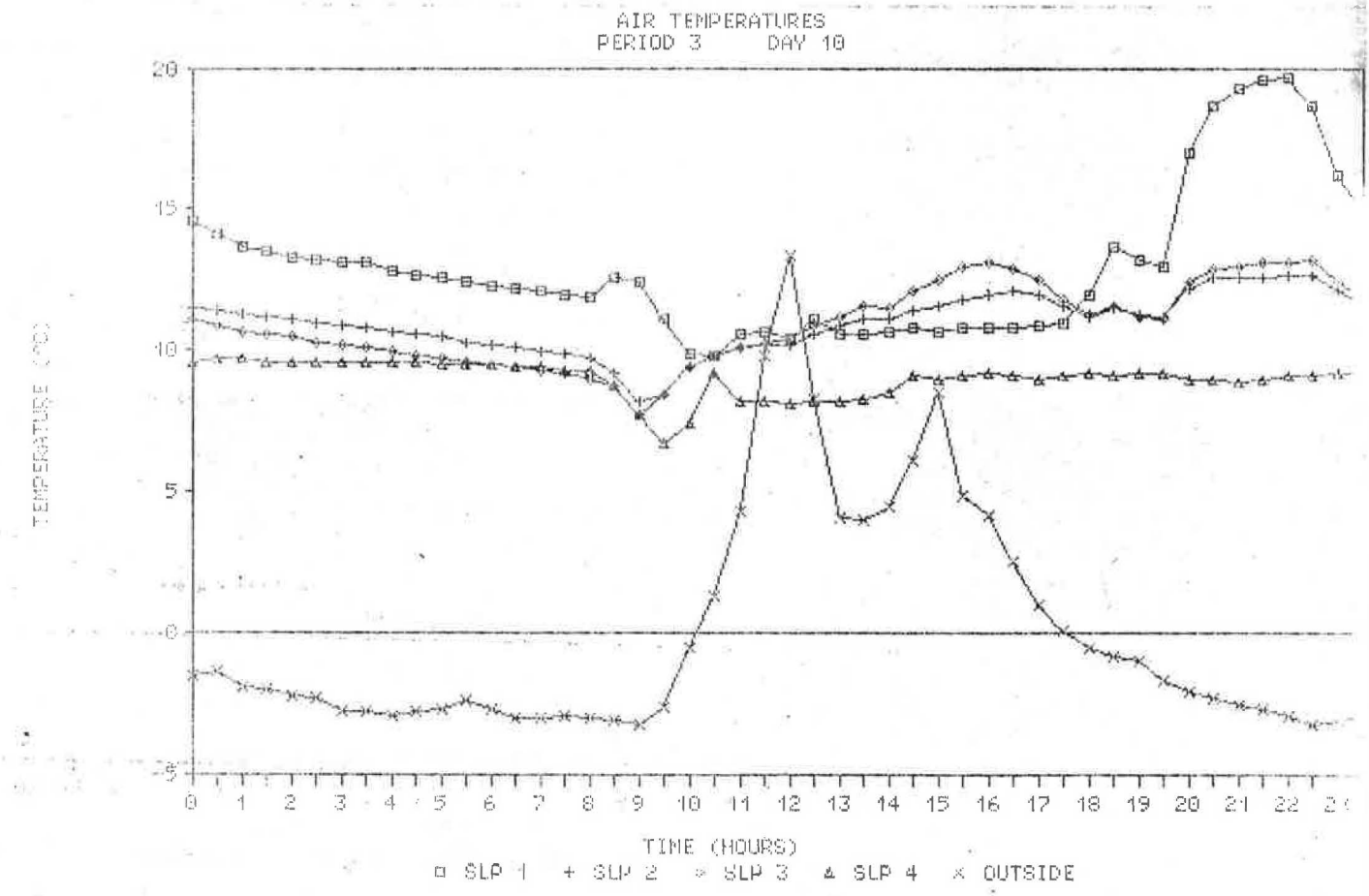

AIR TEMPERATURES
PERIOD 2 DAY 5
TEMPERATURE (°C)
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE

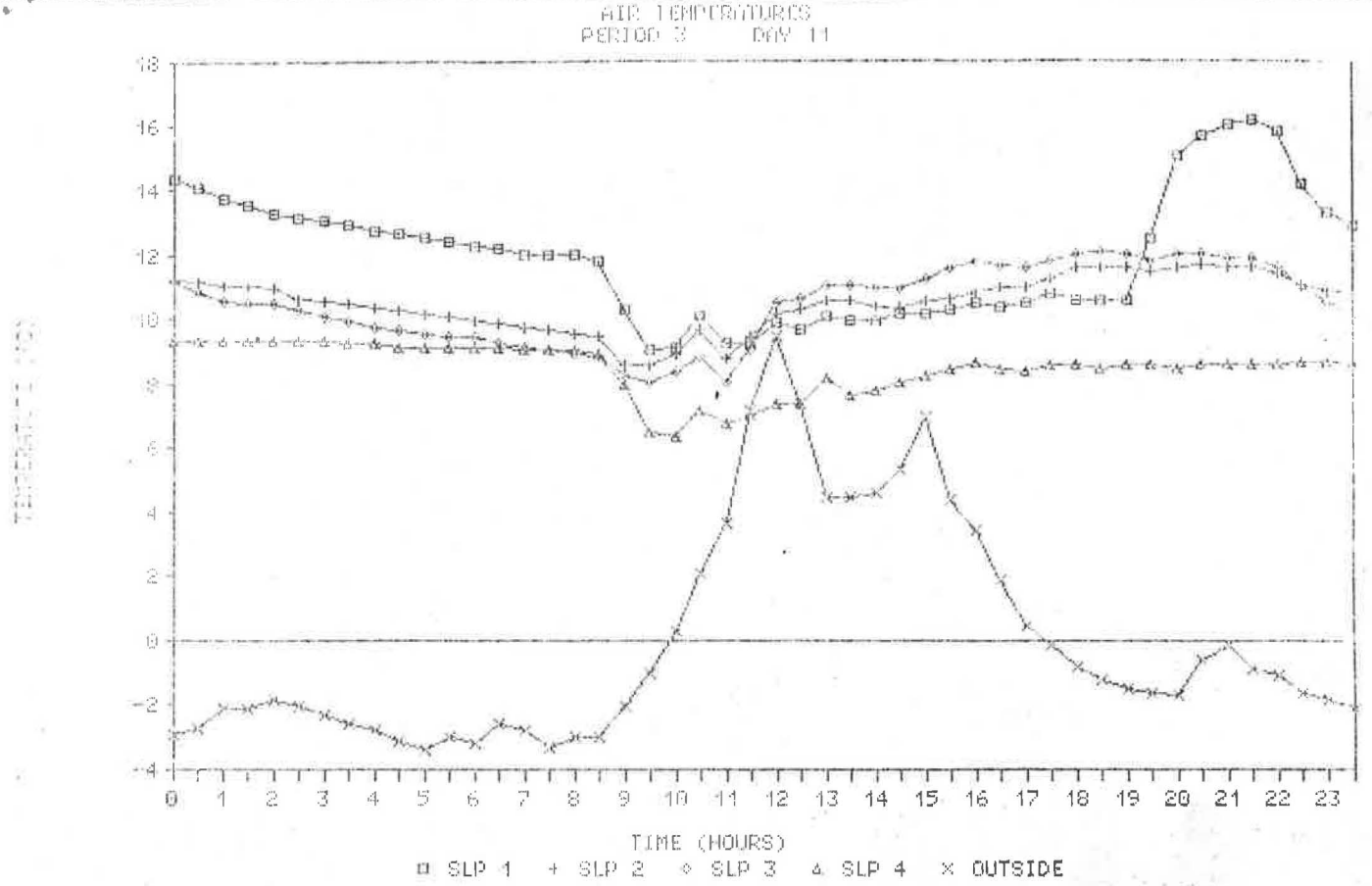

AIR TEMPERATURES
PERIOD 2 DAY 6
TEMPERATURE (°C)
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE

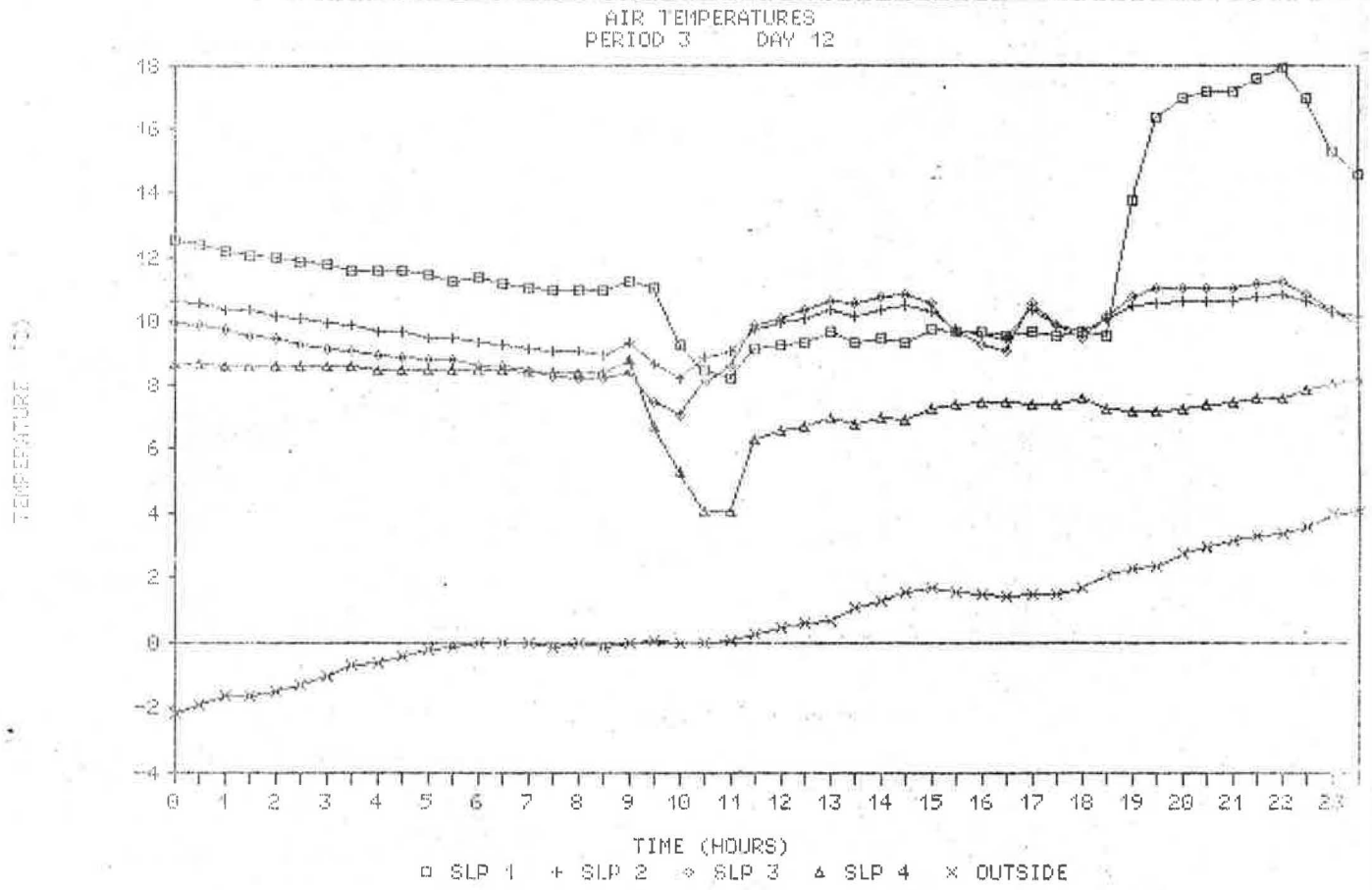

AIR TEMPERATURES
PERIOD 2 DAY 7
TEMPERATURE (°C)
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE

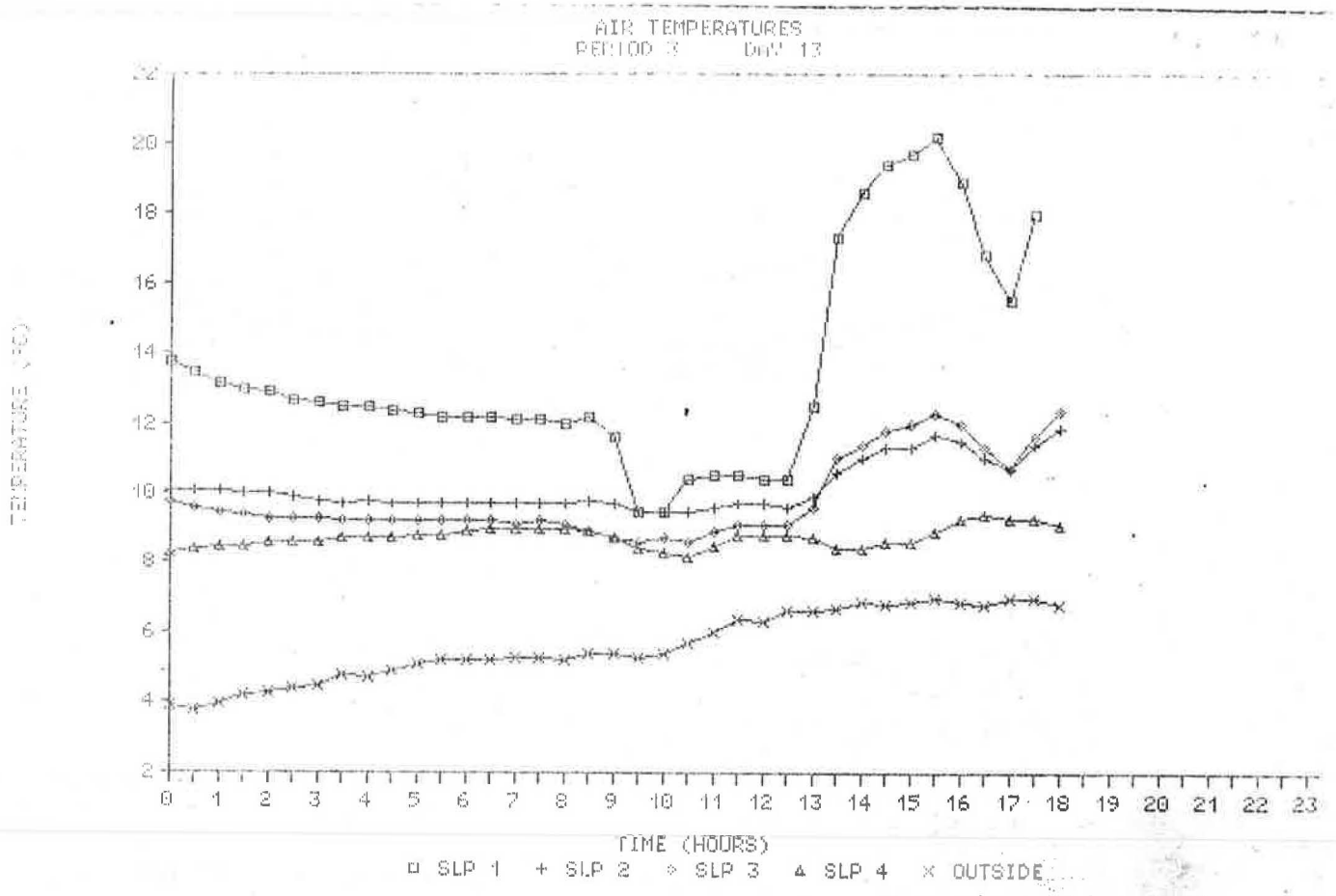

AIR TEMPERATURES
PERIOD 2 DAY 8
TEMPERATURE (°C)
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE

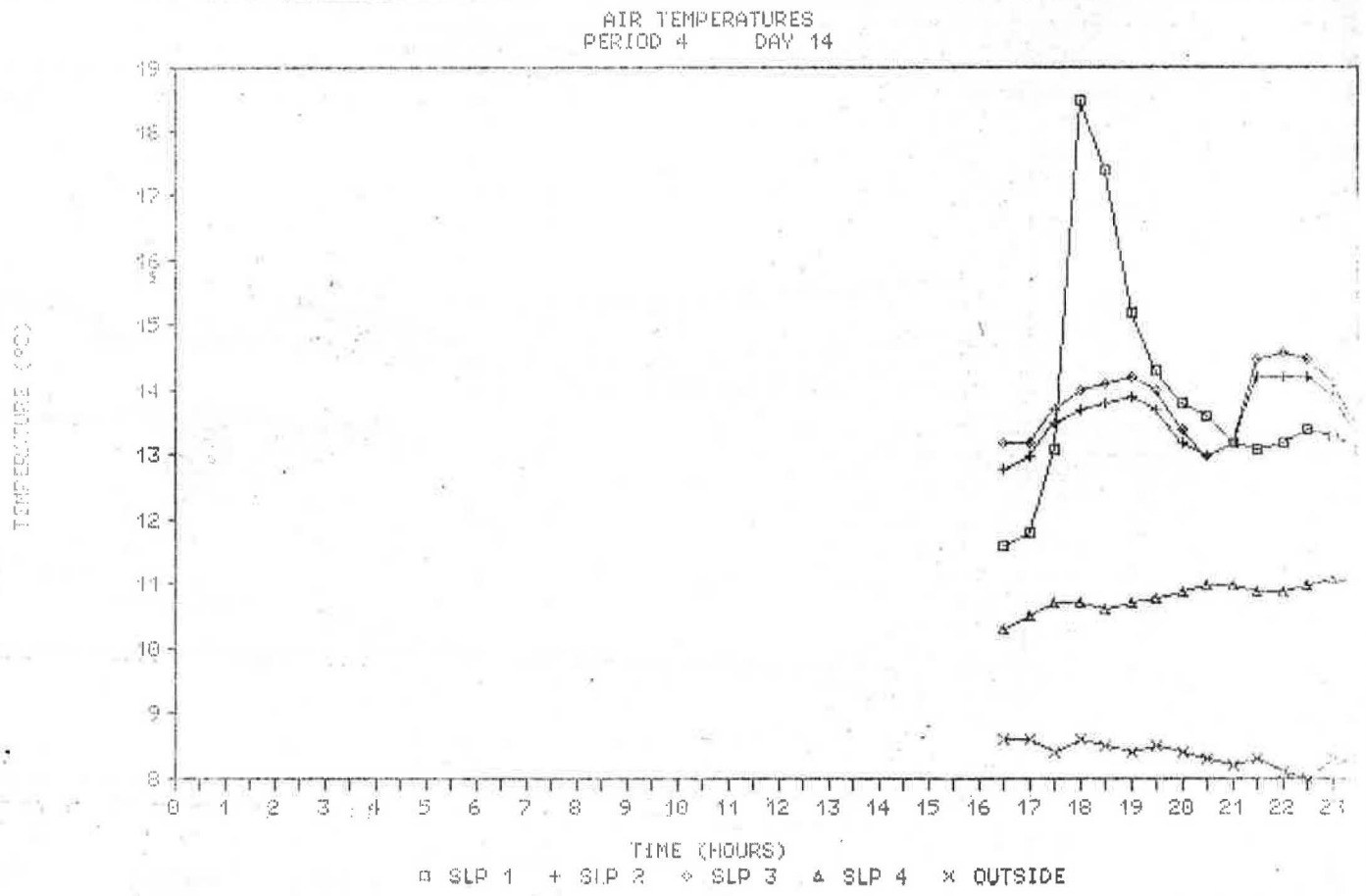

AIR TEMPERATURES
PERIOD 3 DAY 9
TEMPERATURE (°C)
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE

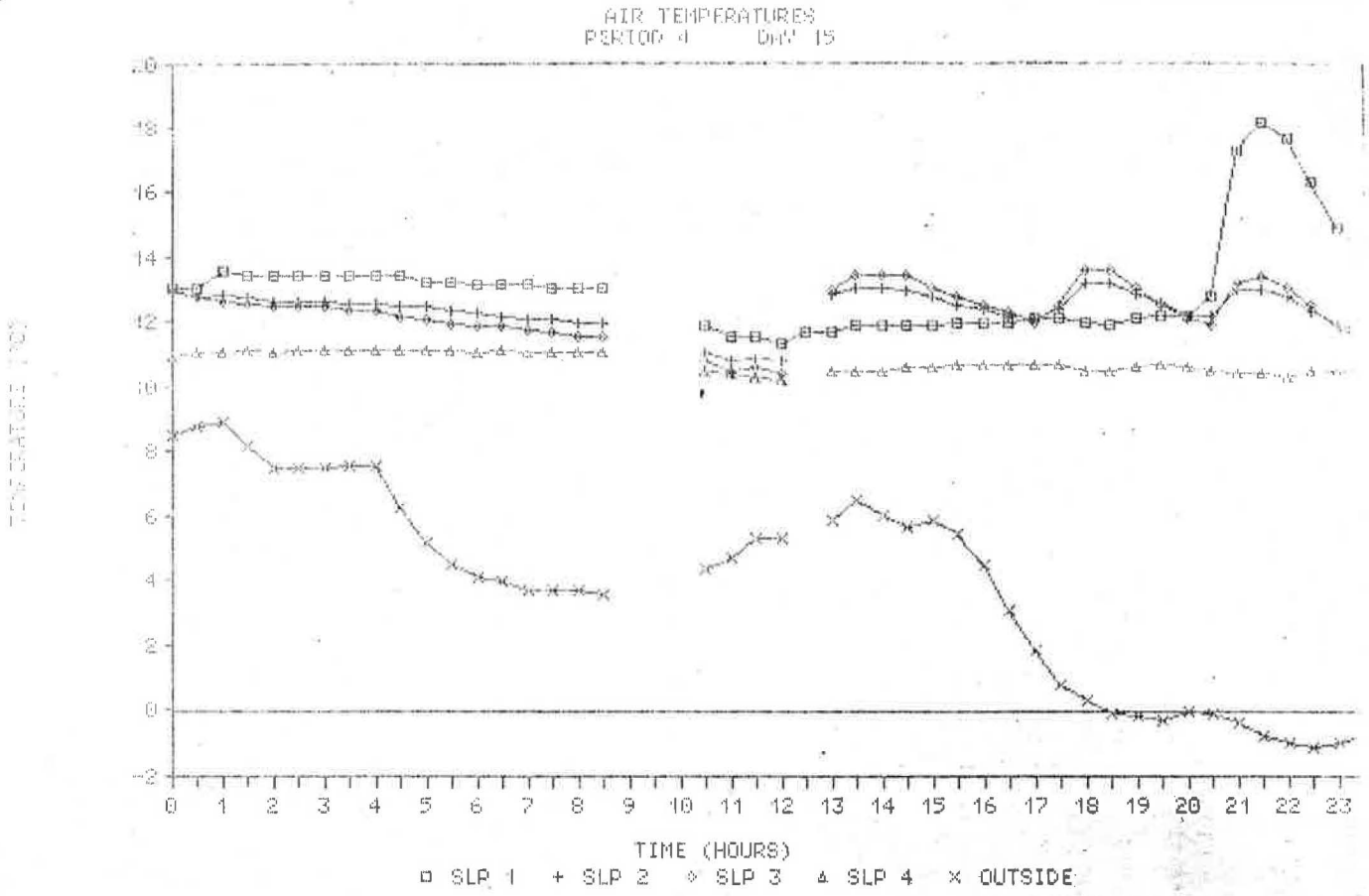

AIR TEMPERATURES
PERIOD 3 DAY 10
TEMPERATURE (°C)
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE

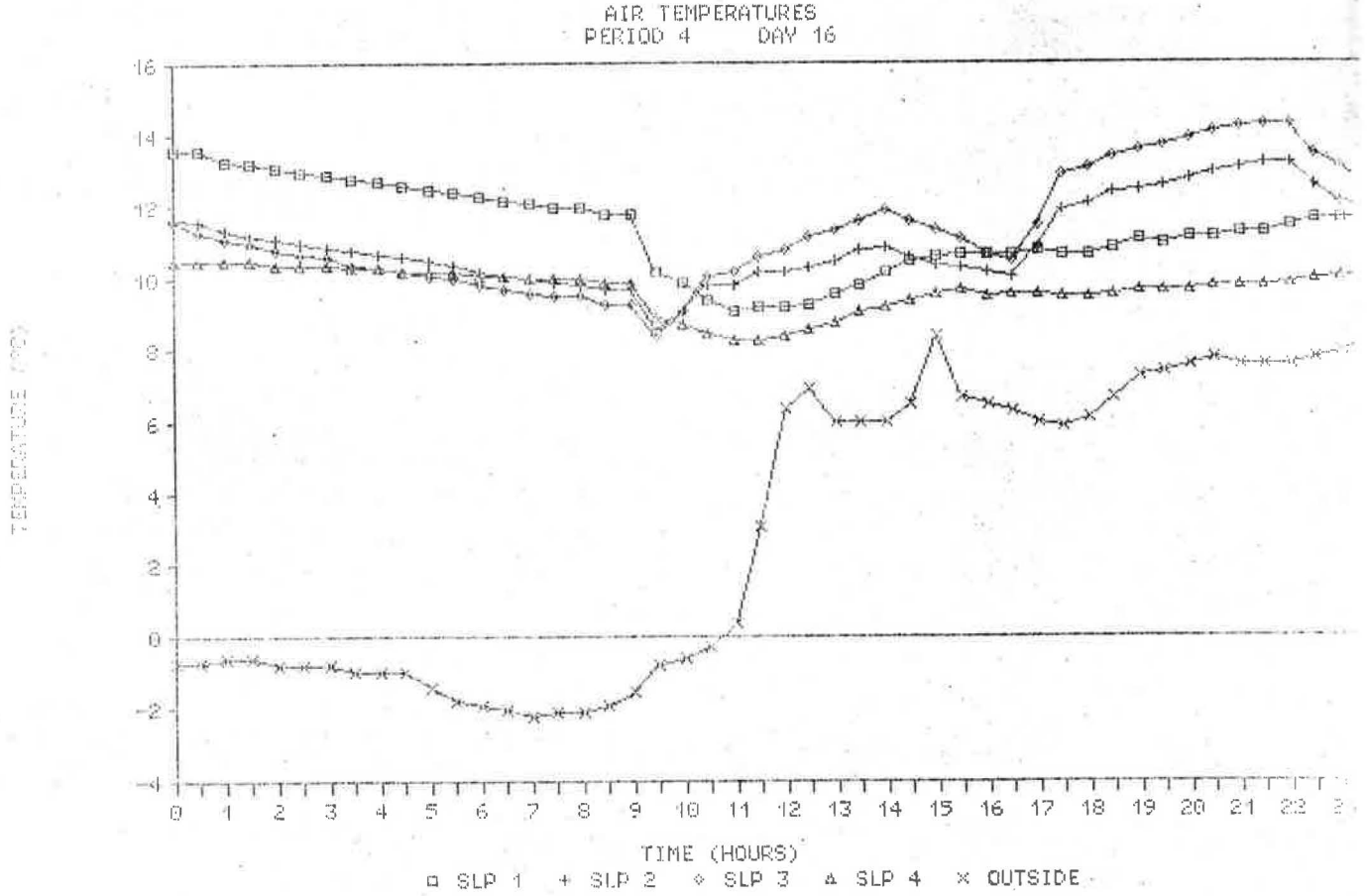

AIR TEMPERATURES
PERIOD 3 DAY 11
TEMPERATURE (°C)
TIME (HOURS)
SLP 1
SLP 2
SLP 3
SLP 4
OUTSIDE

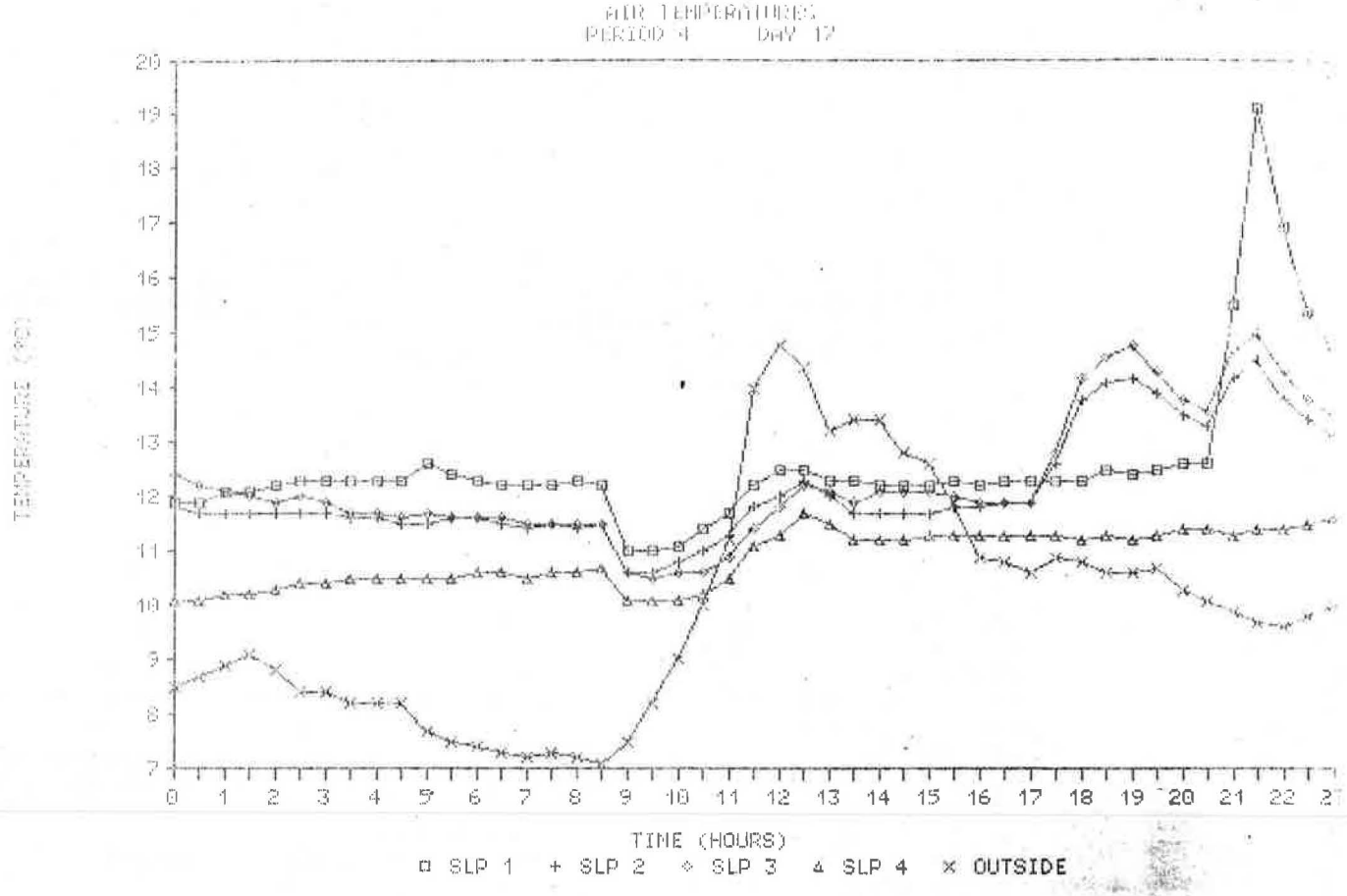

AIR TEMPERATURES
PERIOD 3 DAY 12
TEMPERATURE (°C)
TIME (HOURS)
SLP 1
SLP 2
SLP 3
SLP 4
OUTSIDE

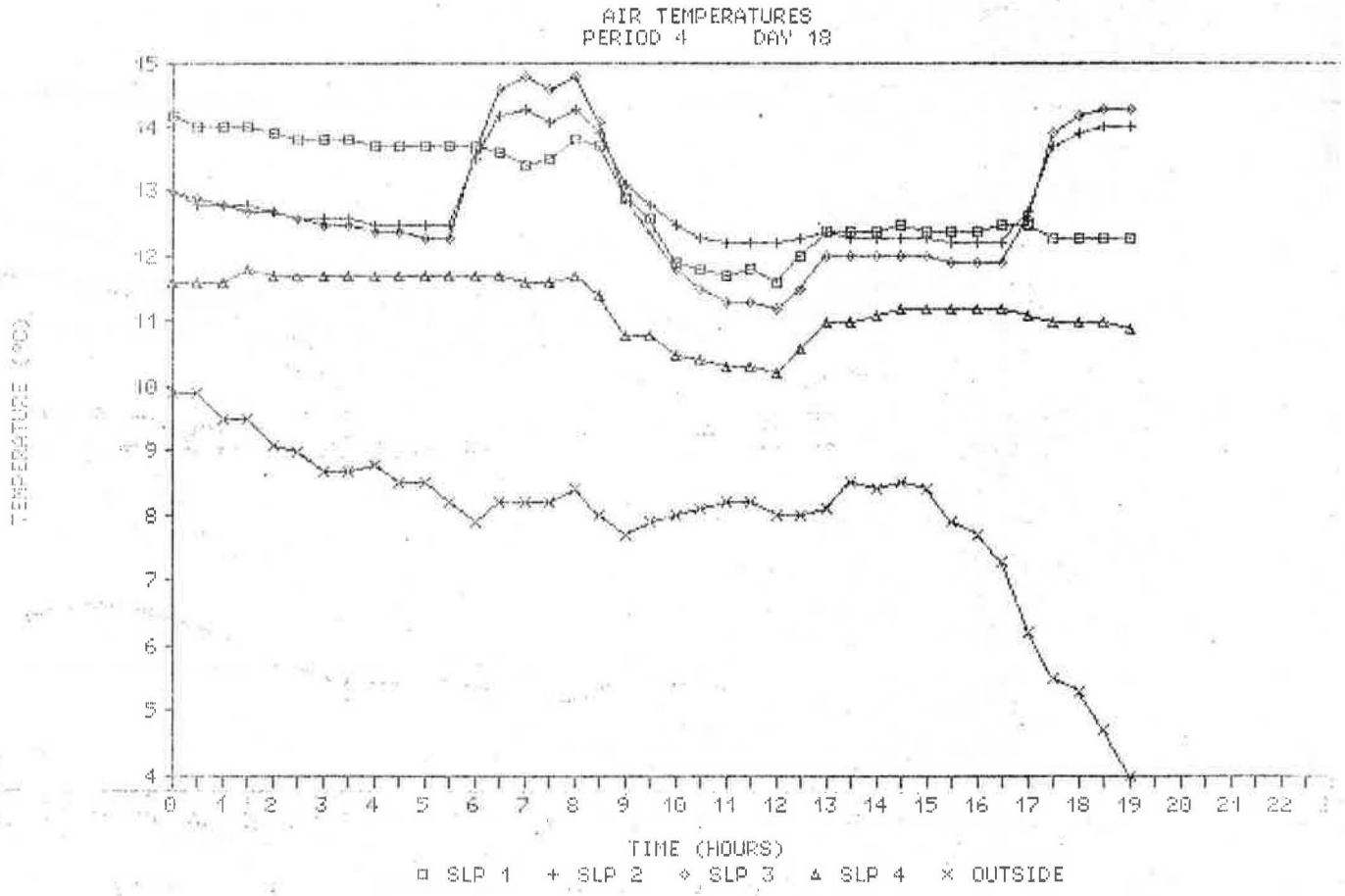

AIR TEMPERATURES
PERIOD 3 DAY 13
TEMPERATURE (°C)
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE

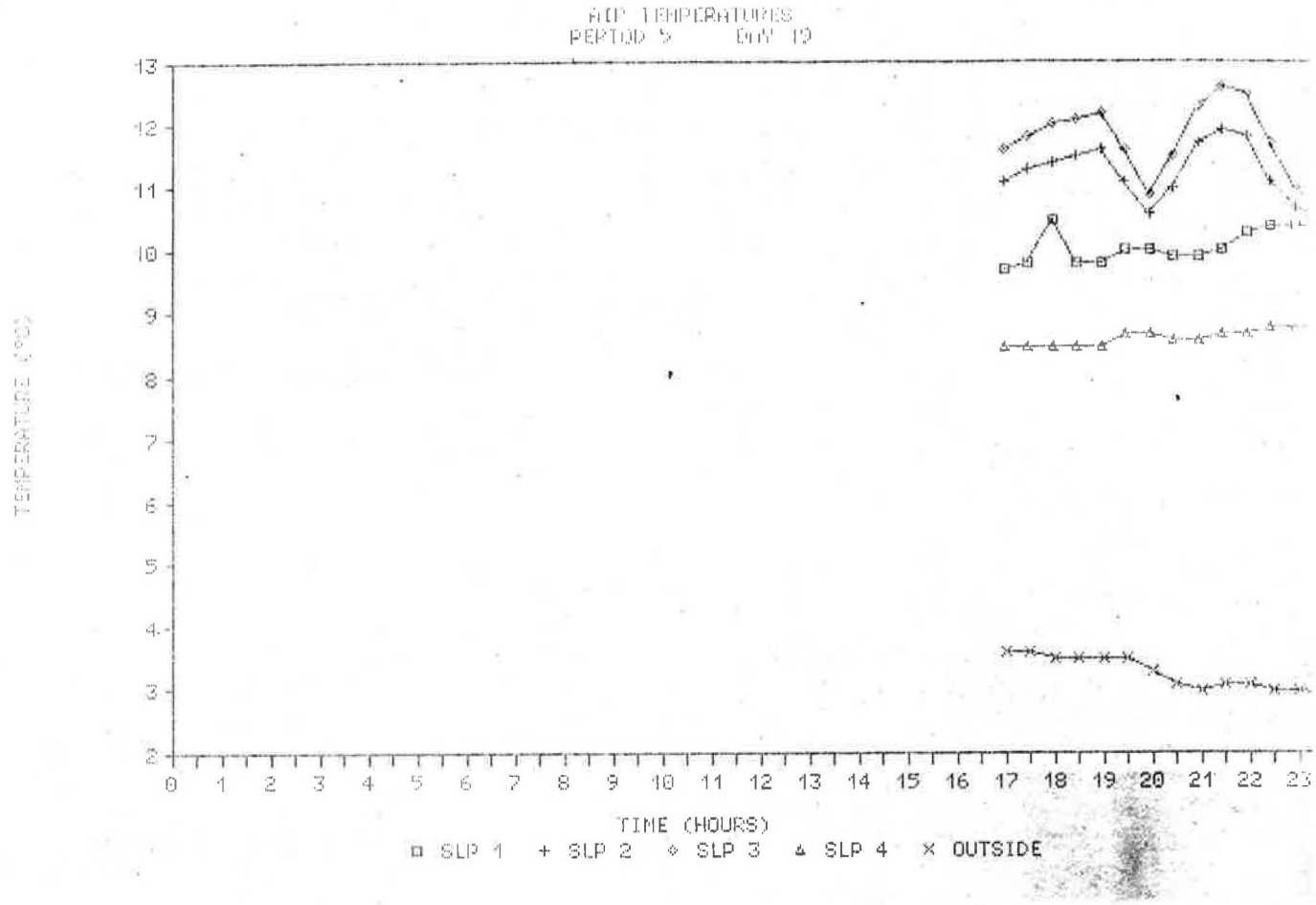

AIR TEMPERATURES
PERIOD 4 DAY 14
TEMPERATURE (°C)
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE

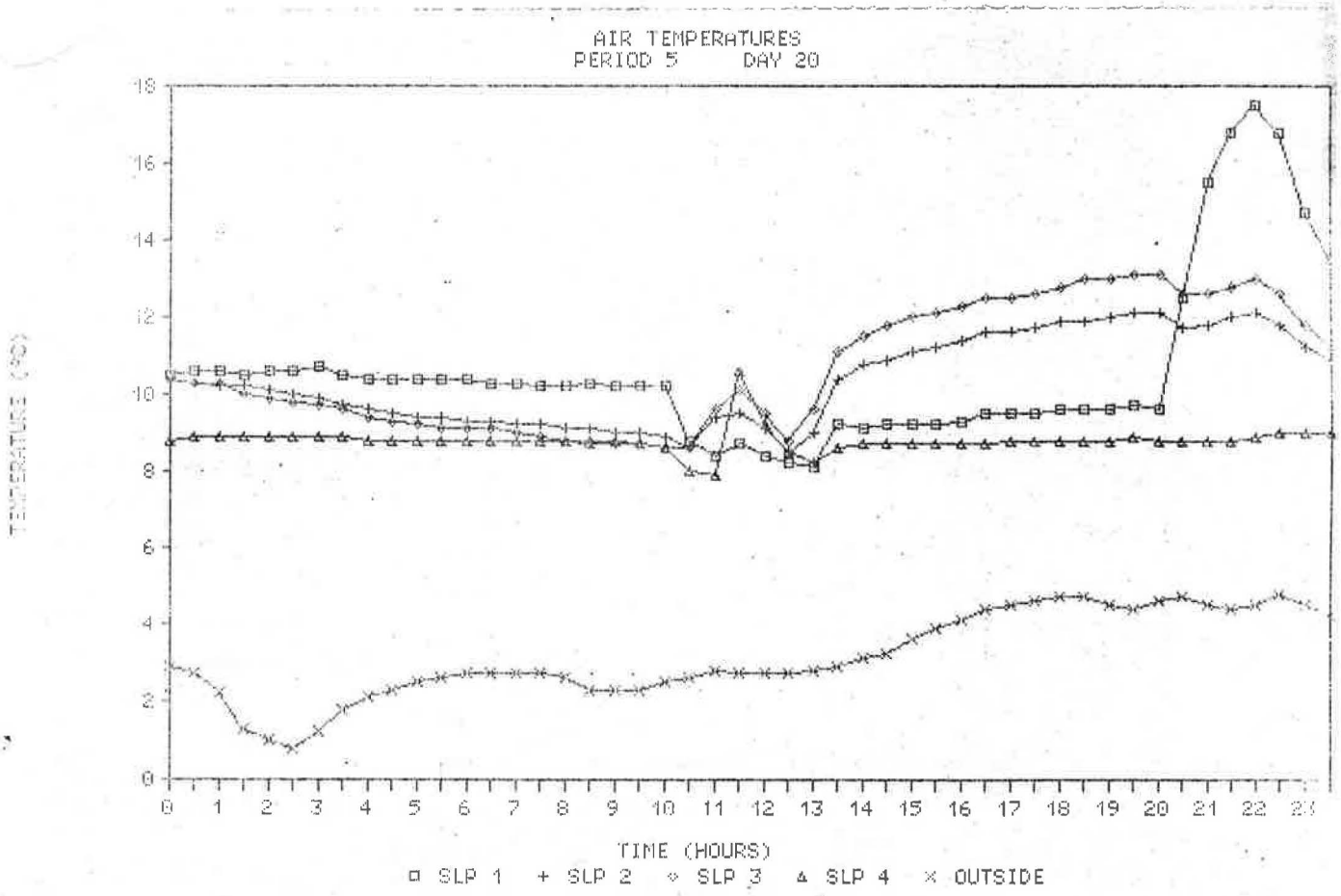

AIR TEMPERATURES
PERIOD 4 DAY 15
TEMPERATURE (°C)
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE

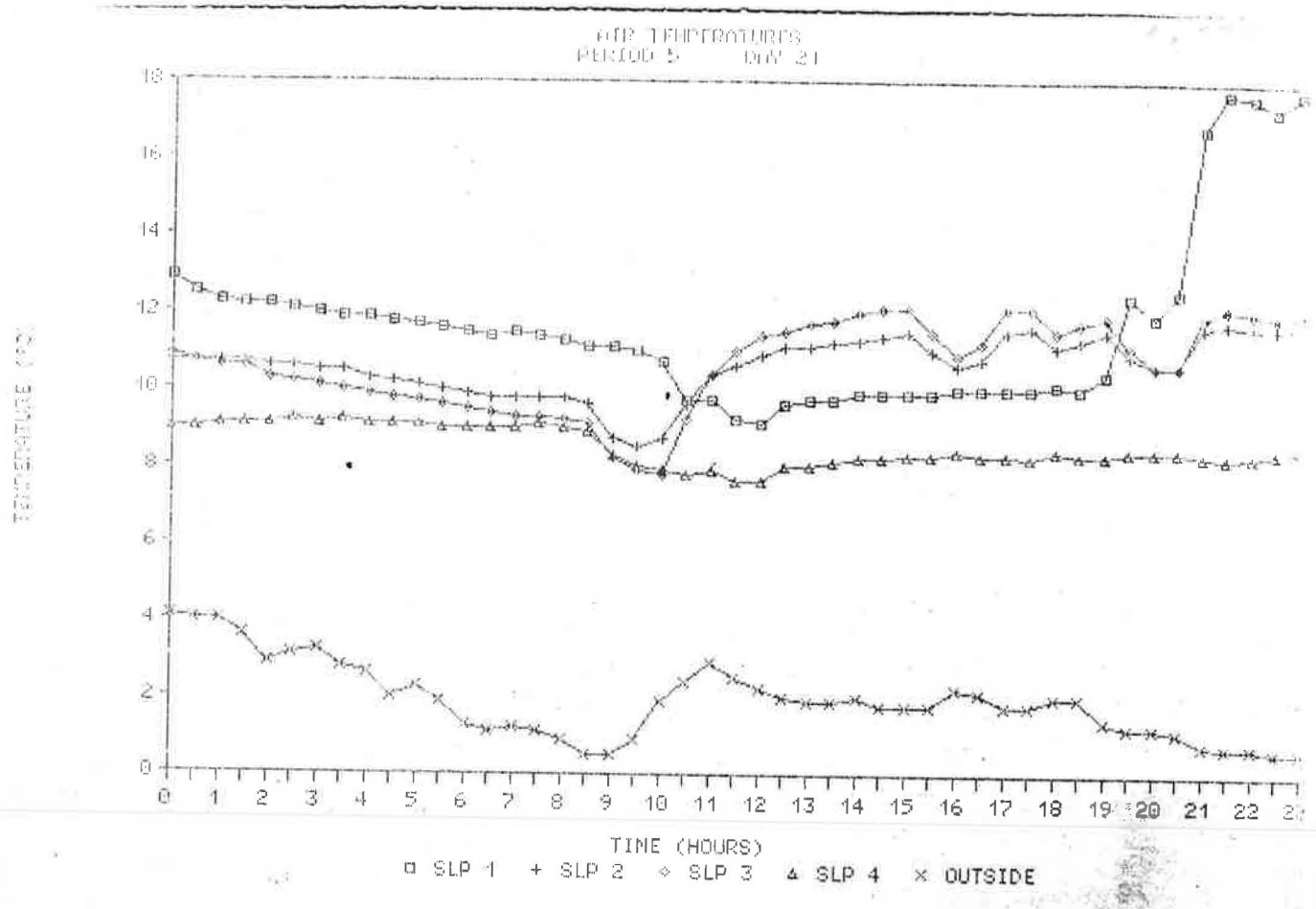

AIR TEMPERATURES
PERIOD 4 DAY 16
TEMPERATURE (°C)
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE

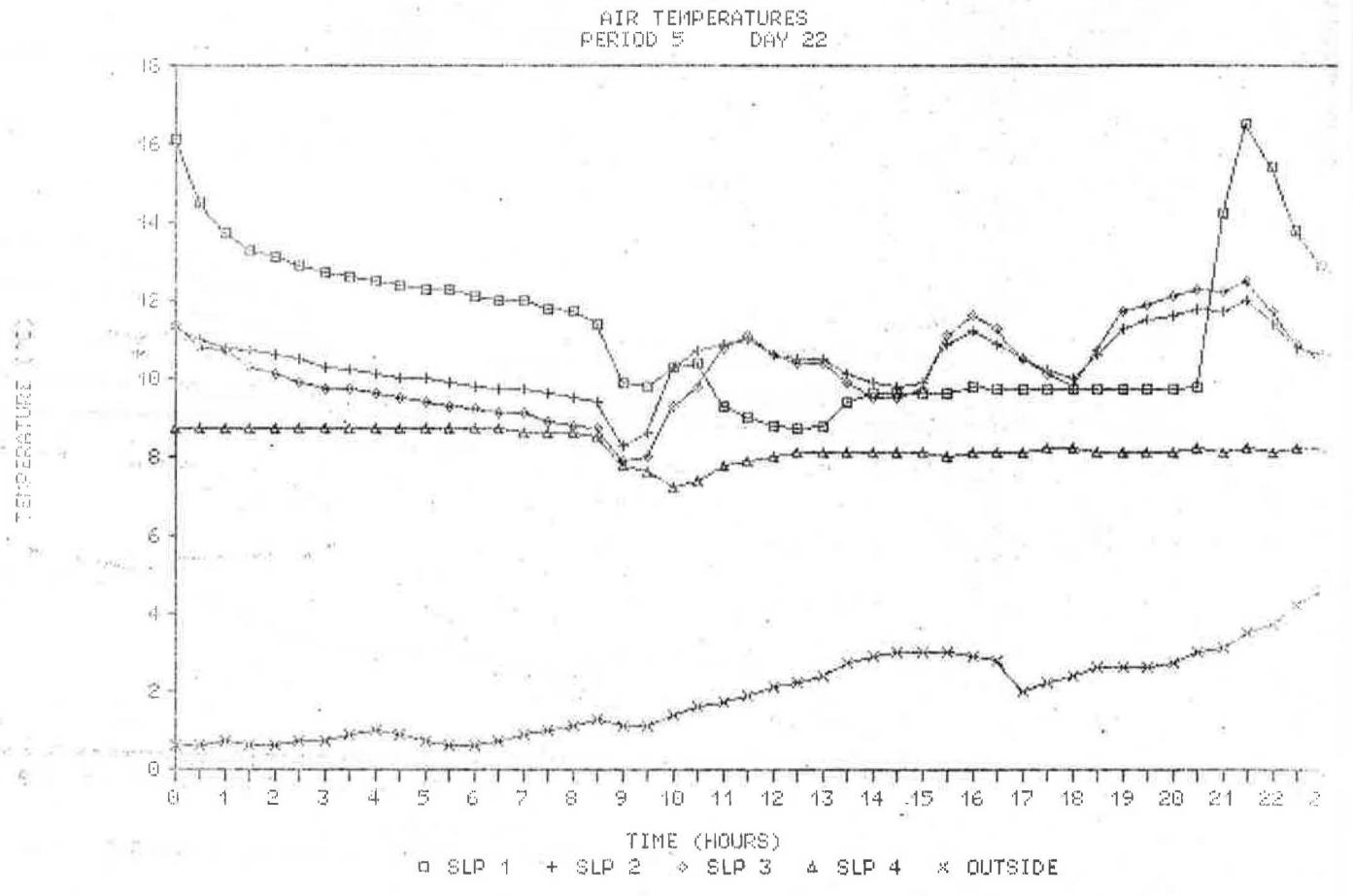

AIR TEMPERATURES
PERIOD 4 DAY 17
TEMPERATURE (°C)
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE

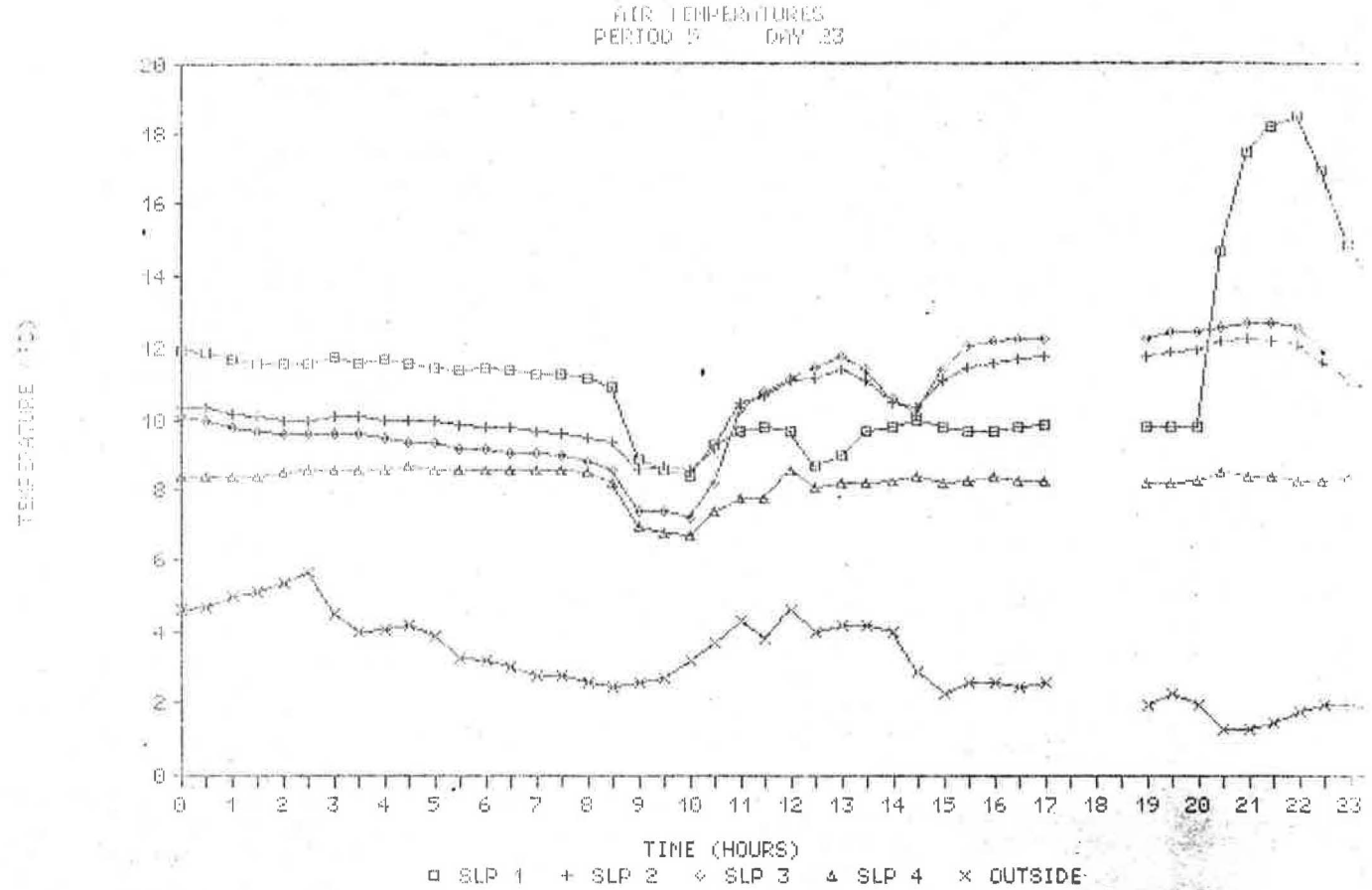

AIR TEMPERATURES
PERIOD 4 DAY 18
TEMPERATURE (°C)
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE

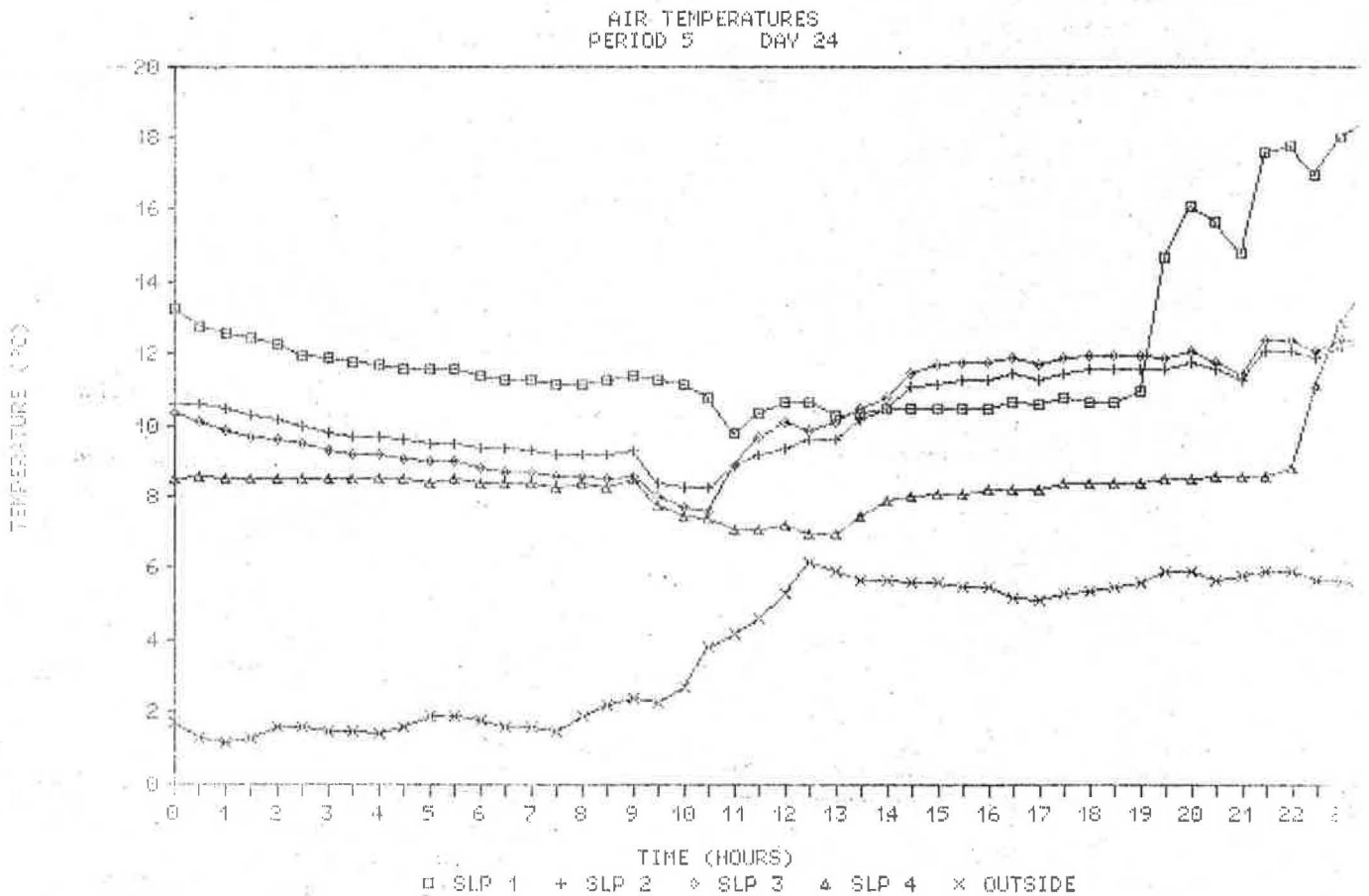

AIR TEMPERATURES
PERIOD 5 DAY 19
TEMPERATURE (°C)
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE

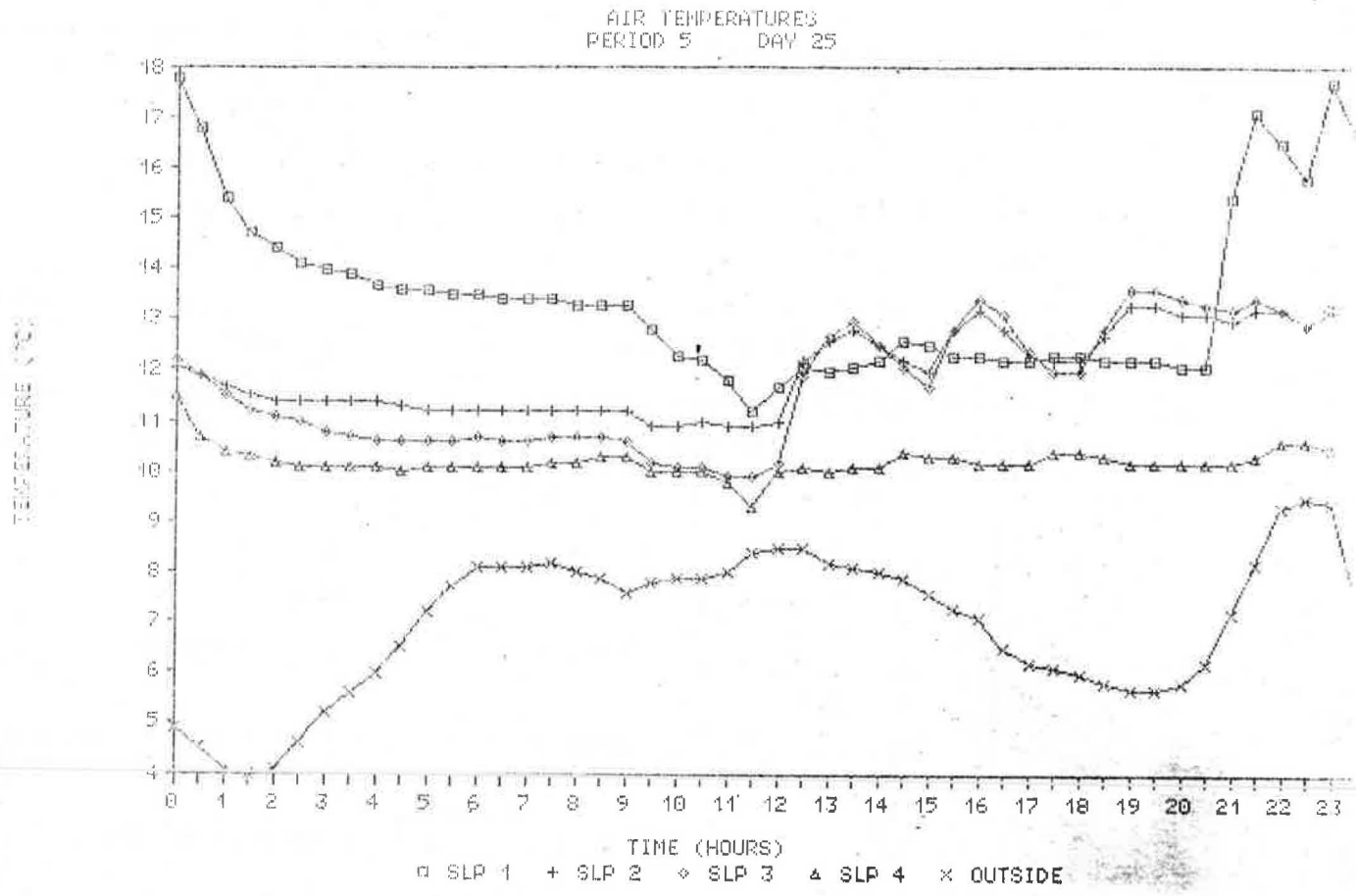

AIR TEMPERATURES
PERIOD 5 DAY 20
TEMPERATURE (°C)
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE

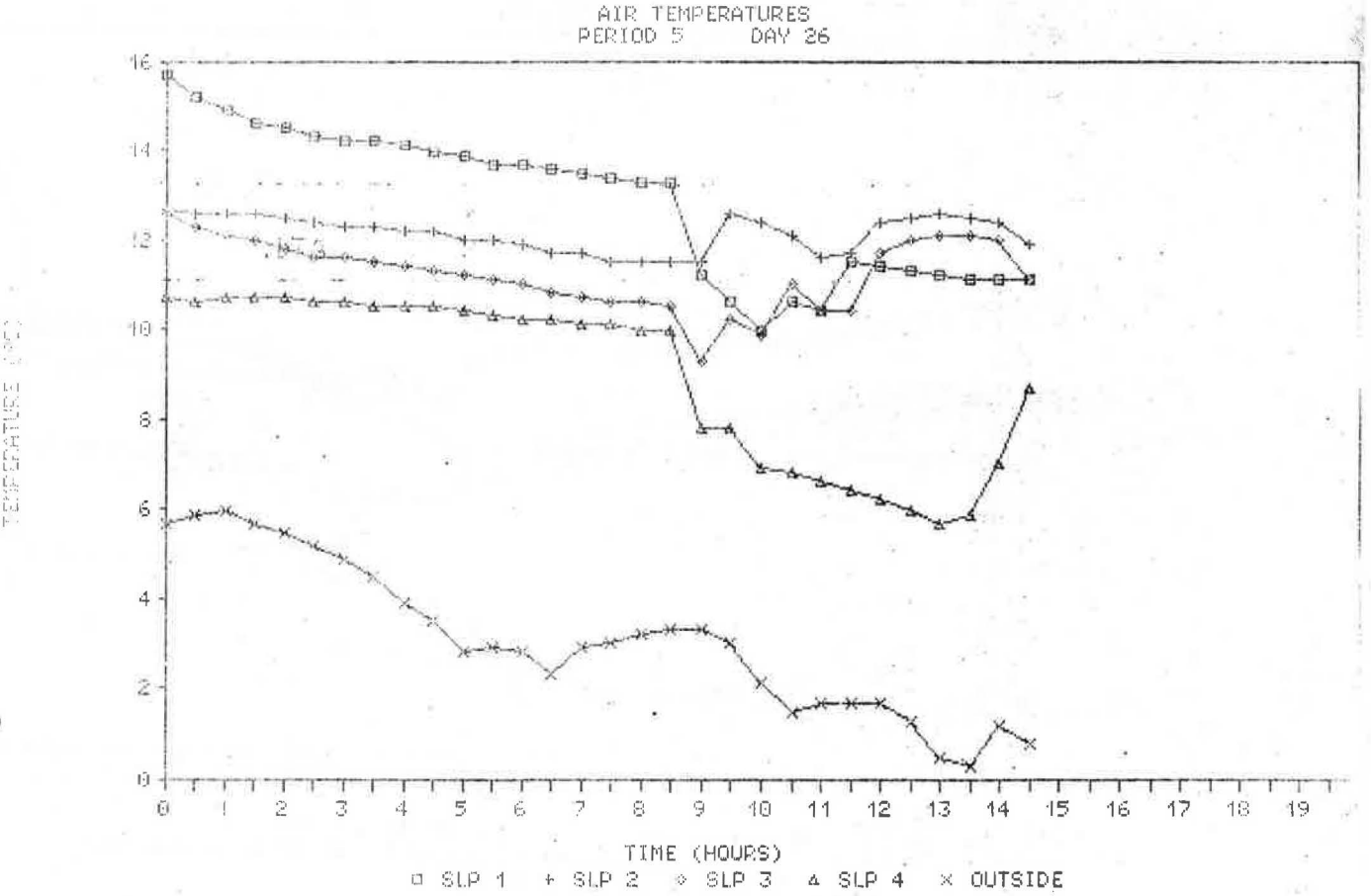

AIR TEMPERATURES
PERIOD 5 DAY 21
TEMPERATURE (C)
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE


AIR TEMPERATURES
PERIOD 5 DAY 22
TEMPERATURE (C)
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE


AIR TEMPERATURES
PERIOD 5 DAY 33
TEMPERATURE (°C)
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE


AIR TEMPERATURES
PERIOD 5 DAY 24
TEMPERATURE (°C)
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE


AIR TEMPERATURES
PERIOD 5 DAY 25
TEMPERATURE (°C)
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE


AIR TEMPERATURES
PERIOD 5 DAY 26
TEMPERATURE (°C)
TIME (HOURS)
□ SLP 1 + SLP 2 ◇ SLP 3 △ SLP 4 × OUTSIDE

APPENDIX 2C
ENERGY CONSUMPTION FOR HEATING

APPENDIX
ENERGY CONSUMPTION FOR NATURAL GAS

HOUSE PERIOD	M3	MJ/M3	MJ	Bf/MJ	RENT (Bf)	TOTAL (17% TAX
HOUSE 1						
BEUKENSTRAAT 13						
18/09/80 -> 26/03/81	3813	35.769	136387	0.19084	1657	32392
26/03/81 -> 08/03/82	4720	35.849	169207	0.25682	2933	54275
08/03/82 -> 07/03/83	4224	36.136	152638	0.30302	3018	57646
07/03/83 -> 27/02/84	4579	36.182	165677	0.32414	2800	66108
27/02/84 -> 28/02/85	5002	35.802	179082	0.35239	3121	77486
28/02/85 -> 27/02/86	5195	35.454	184184	0.35409	3194	80042
AVERAGE PER YEAR	4589		164529			
HOUSE 8						
EIKENSTRAAT 33						
01/11/84 -> 28/02/85	2009	35.739	71800	0.35844	1051	31341
28/02/85 -> 06/03/86	3554	35.558	126373	0.35062	3463	55893
06/03/86 -> 25/02/87	2728	36.254	98901	0.25584	2919	33020
AVERAGE PER YEAR	2764		99025			
HOUSE 14						
OLMENSTRAAT 26						
27/2/86 -> 28/02/87	3060	36.220	110833	0.26572	3188	38187
AVERAGE PER YEAR	3060		110833			
HOUSE 15						
OLMENSTRAAT 11						
27/02/84 -> 28/02/85	3839	35.802	137444	0.35239	3121	60319
28/02/85 -> 28/02/86	3886	35.454	137774	0.35409	3194	60815
AVERAGE PER YEAR	3863		137609			
HOUSE 16						
BEUKENSTRAAT 7						
21/11/80 -> 27/03/81	1886	35.621	67181	0.19365	1186	16609
08/03/82 -> 07/03/83	2824	36.136	102048	0.34210	3018	44377
27/02/84 -> 28/02/85	1287	35.802	46077	0.36010	1053	20645
15/01/85 -> 28/02/85	572	35.532	20324	0.35409	526	9035
28/02/85 -> 27/02/86	2953	35.454	104696	0.35409	3194	47111
AVERAGE PER YEAR	1904		68065			
HOUSE 17						
BERKENSTRAAT 30						
08/03/82 -> 07/03/83	3056	36.136	110432	0.30302	3018	42683
07/03/83 -> 27/02/84	2861	36.182	103517	0.32414	2800	42534
27/02/84 -> 28/02/85	1489	35.802	53309	0.35239	3121	25631
28/02/85 -> 06/03/86	2583	35.558	91846	0.35062	3463	41729
06/03/86 -> 25/02/87	2206	36.254	79976	0.25584	2919	27355
AVERAGE PER YEAR	2439		87816			
HOUSE 18						
KANADASTRAAT 9						
07/03/83 -> 27/02/84	2460	36.182	89008	0.32414	2800	37032
27/02/84 -> 28/02/85	2993	35.802	107155	0.35239	3121	47831
28/02/86 -> 25/02/87	3039	36.220	110073	0.26572	3188	37951
AVERAGE PER YEAR	2831		102079			
HOUSE 19						
OLMENSTRAAT 34						
28/02/85 -> 28/02/85	1438	35.454	50983	0.35409	3194	24858
28/02/86 -> 25/02/87	1500	36.220	54330	0.26572	3188	20621
AVERAGE PER YEAR	1469		52656			