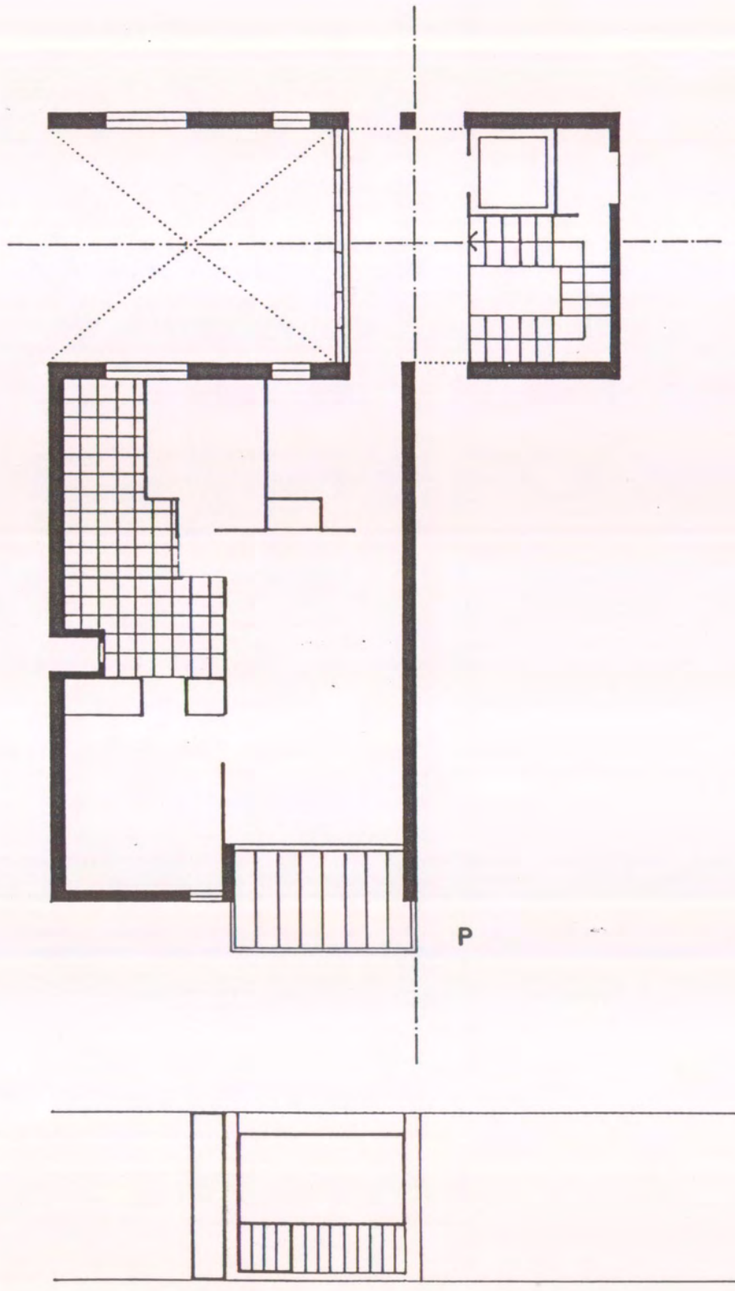
TESIS DOCTORAL

BIOCLIMATISMO Y TIPO ARQUITECTONICO EN CATALUNYA EN EL PERIODO 1930/1985

2.3. EVALUACION TOMO II

Autor: VICTOR SEGUI SANTANA

Tutor: RAFAEL SERRA FLORENSA



2.I.D.2

EDIF. MITRE (B)

F.J.BARBA CORSINI

COL: N. FRANCES

DATOS GEOMETRICOS

a = 5,40 m	(5,40/6,90 m)	
b = 8,20 m	(8,20/8,70 m)	
S = 41,84 m²	V = 117,15 m3	
Sl/S = 0,33	Slt/Slo = 2,02	

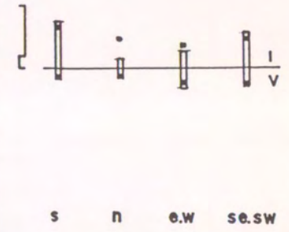
RATIOS TERMICOS (°C)

	sin aislar	aislado
invierno		
S	3,35	3,70
N	0,51	0,62
E	1,23	1,49
W	1,23	1,49
NE	2,51	2,77
SW	2,51	2,77
verano		
S	0,75	0,77
N	0,74	0,90
E	1,41	1,56
W	1,41	1,56
SE	0,98	1,18
SW	0,98	1,18

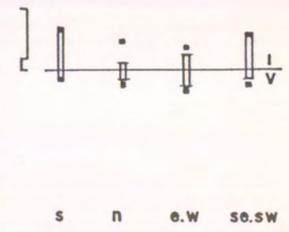
MASA TERMICA (kcal/°C m3)

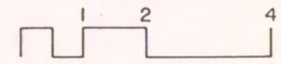
69,39 81,41

RT CON



RT SIN





BARCELONA 85-88

E.T.S.A.B. U.P.C.

TESIS DOCTORAL · BIOCLIMATISMO Y TIPO ARQUITECTONICO EN CATALUÑA EN EL PERIODO 1930 1985 · VICTOR SEGUI SANTANA

EDIFICIO MITRE (B) F.J BARBA CORSINI COL: M. FRANCES

21D2

CAPTORES TRANSPARENTES	1	V. SUR 1	S	0.4.A
			t	0.7
			CR	CR1
	2	V. SUR 2	S	1.726AC
			t	0.7
			CR	CR1
	3	V. PATIO	S	2.4
			t	0.7
			CR	PATIO
	4		S	
			t	
			CR	
	5		S	
			t	
			CR	
	6		S	
			t	
			CR	
CAPTORES OPACOS	1	P. SUR 1	S	1.01.A
			CK	CK2
			a	0.6
			CR	CR1
	2	P SUR 2	S	0.259 A
			CK	CK3
			a	0.6
			CR	CR1
	3		S	
			CK	
			a	
			CR	
	4		S	
			CK	
			a	
			CR	
	5		S	
			CK	
			a	
			CR	
	6		S	
			CK	
			a	
			CR	
	7		S	
			CK	
			a	
			CR	
	8		S	
			CK	
			a	
			CR	
	9		S	
			CK	
			a	
			CR	
CUBIERTA	1		S	
			CK	
			a	

TRANSMISION FACHADAS	1	V. SUR	S	2.12.A
			K	K1
			K	X1
	2	P. SUR 1	S	1.01.A
			K	K2
			K	K1
	3	P SUR 2	S	0.26A
			K	K3
			K	K1
	4	VIDRIO PATIO	S	0.26A
			K	K4
			K	PATIO
	5	V. PATIO 2	S	0.24
			K	K5
			K	PATIO
	6	V PATI 3	S	0.14A
			K	K5
			K	PATIO
	7	P. PATI 1	S	2.7 A
			K	K6
			K	PATIO
	8	P. PATI 2	S	3.4
			K	K7
			K	PATIO
	9		S	
			K	
			K	
	10		S	
			K	
			K	
	11		S	
			K	
			K	
	12		S	
			K	
			K	
	13		S	
			K	
			K	
	14		S	
			K	
			K	
	15		S	
			K	
			K	
	16		S	
			K	
			K	

INFILTRACIONES			S	15.48
			R	1.58
SEPARACION TERRENO	1		S	
			K	
	2		S	
			K	
SEPARACION OTROS LOCALES	1	PUERTA	S	1.68
			K	K8
	2	MEDIAN 1	S	5.4 B
			K	K9
	3	FORJADOS	S	2(A.B-0.48 -0.36 A)
			K	K10
	4		S	
			K	
	5		S	
			K	
TRANSMISION PIEL HORIZONT. CUBIERTA	1		S	
			K	
	2		S	
			K	

SUPERFICIE EN PLANTA	(A.B - 0.48 - 0'36A)

EDIFICIO MITRE (B) F. J. BARBA CORSINI COL: M. FRANCES

21D2

VARIABLES GEOMETRICAS	A	B	Amin.	Amax.	I	Bmin.	Bmax.	I	DESVIACION	B para S Cte.	VOLUMEN	SUPERFICIE
	5.4	8.2	5.4	6.9	0.1	8.2	8.7	0.1	0.01	$B = \frac{(42.32 + 0.36A)}{A}$	117.15	41.84

R=2800	INVIERNO	K_1	K_2	K_3	K_4	K_5	K_6	K_7	K_8	K_9	K_{10}	K_{11}	K_{12}	K_{13}	K_{14}	K_{15}	K_{16}	K_{17}	K_{18}	VERANO	R=2050
		4.4	2.8	1	4.4	5	2.12	2.8	1.6	1.7	1.34										

O	RH	COEFICIENTES							COEFICIENTES DE TRANSMISION K																		COEFICIENTES						RH	O
S		CR_1	1	CR_2		CR_3		CR_4	K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2	1	CR_1		S
		K_1	0.8	K_2		K_3		K_4																			K_4		K_3		K_2	0.9	K_1		
	1.58	C	0.8	D		F		G	4.4	2.8	1	4.4	5	0.47	0.49	1.6	1.7	1.34									G		F		D	0.87	C	20.069	
N		CR_1	0.137	CR_2		CR_3		CR_4	K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2	0.756	CR_1		N
		K_1	1.2	K_2		K_3		K_4																			X_4		K_3		K_2	0.8	K_1		
	1.58	C	1	D		F		G	4.4	0.49	1	4.4	5	0.47	0.49	1.6	1.7	1.34									G		F		D	0.187	C	3.604	
E		CR_1	0.3977	CR_2		CR_3		CR_4	K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2	1345	CR_1		E
		K_1	1	K_2		K_3		K_4																			K_4		K_3		K_2	1	K_1		
	1.58	C	0.75	D		F		G	4.4	0.49	1	4.4	5	0.47	0.49	1.6	1.7	1.34									G		F		D	0.83	C	11.955	
W		CR_1		CR_2		CR_3		CR_4	K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2		CR_1		W
		K_1		K_2		K_3		K_4																			K_4		K_3		K_2		K_1		
		C		D		F		G																			G		F		D		C		
SE		CR_1	0.768	CR_2		CR_3		CR_4	K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2	1.2469	CR_1		SE
		K_1	0.9	K_2		K_3		K_4																			K_4		K_3		K_2	0.95	K_1		
	1.58	C	0.797	D		F		G	4.4	2.8	1	4.4	5	0.47	0.49	1.6	1.7	1.34									G		F		D	0.76	C	16.518	
SW		CR_1		CR_2		CR_3		CR_4	K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2		CR_1		SW
		K_1		K_2		K_3		K_4																			K_4		K_3		K_2		K_1		
		C		D		F		G																			G		F		D		C		

```
44 REM *************** ESQUELET DE L'EDIFICI:mcorsini                    *********
******
45 REM
50 DO=CR1*(.4*A*.7+1.726*A*C*.7)       'façana 1 - Capt.transp. CRi*s*t
52 DA=CR2*O                            'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*O                            'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*O                            'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*2.4*.7                      'patis    - Capt.transp. CRi*s*t
60 DP=CR1*(1.01*A*CK2*.6+.259*A*CK3*.6)'façana 1 - Capt.opacs  CRi*s*abs*ck
62 DD=CR2*O                            'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*O                            'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*O                            'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*O                            'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=.52*O                            'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=(A*B-.48-.36*A)                 'superficie en planta   funció a i b
74 DU=A1*( 2.12*A*K1+1.01*A*K2+.26*A*K3) 'façana 1 - Transmissió  ai*s*kn
76 DK=A2*O                             'façana 2 - Transmissió  ai*s*kn
78 DL=A3*O                             'façana 3 - Transmissió  ai*s*kn
80 DM=A4*O                             'façana 4 - Transmissió  ai*s*kn
82 DH=.8*(.26*A*K4+.24*K5+.14*A*K5+2.7*A*K6+3.4*K7)      'patis    - Transmiss
  ai*s*kn
84 DV=O                                'terra    - Transmissió  s*kn
86 DW=(1.68*K8+5.4*B*K9+2*(A*B-.48-.36*A)*K10)                          'local
  - Transmissió  s*kn
88 DX=O                                'coberta  - Transmissió  s*kn
89 RETURN
90 B=(42.32+.36*A)/A                           'valor b per S constant   (func
 de a)
```

edifici: mcorsini
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= 1.58
c= .8 d= 0 f= 0
kn= 4.4 2.8 1 4.4 5 2.12 2.8 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .8 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.40	8.20	41.9	7.104	1.664	0.455	3.351
Variació a amb b constant						
a= 5.40/ 6.9 / .1						
5.40	8.20	41.9	7.104	1.664	0.455	3.351
5.50	8.20	42.6	7.101	1.656	0.455	3.363
5.60	8.20	43.4	7.098	1.649	0.455	3.375
5.70	8.20	44.2	7.096	1.640	0.455	3.386
5.80	8.20	45.0	7.093	1.633	0.455	3.396
5.90	8.20	45.8	7.091	1.626	0.455	3.407
6.00	8.20	46.6	7.088	1.619	0.455	3.417
6.10	8.20	47.3	7.086	1.612	0.455	3.427
6.20	8.20	48.1	7.084	1.606	0.455	3.437
6.30	8.20	48.9	7.081	1.600	0.455	3.446
6.40	8.20	49.7	7.079	1.594	0.455	3.455
6.50	8.20	50.5	7.077	1.588	0.455	3.464
6.60	8.20	51.3	7.075	1.582	0.455	3.473
6.70	8.20	52.0	7.073	1.577	0.455	3.481
6.80	8.20	52.8	7.071	1.571	0.455	3.489
6.90	8.20	53.6	7.070	1.566	0.455	3.498
Variació a/b per RT constant						
ratio inicial= 3.351 desviació= .01						
a= 5.40/ 6.9 / .1	b= 8.2 / 8.7 / .1					
	8.20	41.9	7.104	1.664	0.455	3.351
	8.30	44.0	7.008	1.638	0.455	3.347
	8.30	44.8	7.005	1.631	0.455	3.358
	8.40	46.2	6.915	1.613	0.455	3.342
	8.40	47.0	6.912	1.606	0.455	3.353
	8.50	49.2	6.822	1.583	0.455	3.346
	8.50	50.0	6.820	1.577	0.455	3.356
	8.60	52.3	6.732	1.556	0.455	3.348
	8.60	53.1	6.731	1.550	0.455	3.356
	8.70	55.4	6.646	1.530	0.455	3.347
	8.70	56.2	6.644	1.525	0.455	3.355
Variació a/b per S constant						
a= 5.4 / 6.9 / .1						
5.40	8.20	41.8	7.107	1.665	0.455	3.352
5.50	8.05	41.8	7.237	1.671	0.455	3.403
5.60	7.92	41.8	7.367	1.678	0.455	3.454
5.70	7.78	41.8	7.497	1.685	0.455	3.503
5.80	7.66	41.8	7.628	1.692	0.455	3.552
5.90	7.53	41.8	7.758	1.699	0.455	3.601
6.00	7.41	41.8	7.888	1.707	0.455	3.648
6.10	7.30	41.8	8.018	1.714	0.455	3.695
6.20	7.19	41.8	8.148	1.722	0.455	3.742
6.30	7.08	41.8	8.278	1.730	0.455	3.788
6.40	6.97	41.8	8.408	1.738	0.455	3.833
6.50	6.87	41.8	8.539	1.747	0.455	3.878
6.60	6.77	41.8	8.669	1.755	0.455	3.922
6.70	6.68	41.8	8.799	1.764	0.455	3.966
6.80	6.58	41.8	8.929	1.772	0.455	4.009
6.90	6.49	41.8	9.059	1.781	0.455	4.051

edifici: mcorsini
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= 1.58
c= 1 d= 0 f= 0
kn= 4.4 2.8 1 4.4 5 2.12 2.8 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 0 0 0
alfa= 1.2 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.40	8.20	41.9	1.207	1.878	0.455	0.517
Variació a amb b constant						
a= 5.40/ 6.9 / .1						
5.40	8.20	41.9	1.207	1.878	0.455	0.517
5.50	8.20	42.6	1.205	1.870	0.455	0.518
5.60	8.20	43.4	1.203	1.862	0.455	0.519
5.70	8.20	44.2	1.202	1.854	0.455	0.520
5.80	8.20	45.0	1.200	1.846	0.455	0.521
5.90	8.20	45.8	1.199	1.839	0.455	0.522
6.00	8.20	46.6	1.198	1.832	0.455	0.523
6.10	8.20	47.3	1.196	1.826	0.455	0.524
6.20	8.20	48.1	1.195	1.819	0.455	0.525
6.30	8.20	48.9	1.194	1.813	0.455	0.526
6.40	8.20	49.7	1.192	1.807	0.455	0.527
6.50	8.20	50.5	1.191	1.801	0.455	0.528
6.60	8.20	51.3	1.190	1.795	0.455	0.528
6.70	8.20	52.0	1.189	1.790	0.455	0.529
6.80	8.20	52.8	1.188	1.784	0.455	0.530
6.90	8.20	53.6	1.187	1.779	0.455	0.531
Variació a/b per RT constant						
ratio inicial= .5170001 desviació= .01						
a= 5.40/ 6.9 / .1	b= 8.2 / 8.7 / .1					
	8.20	41.9	1.207	1.878	0.455	0.517
	8.30	42.4	1.191	1.865	0.455	0.513
	8.40	42.9	1.176	1.853	0.455	0.509
	8.20	42.6	1.205	1.870	0.455	0.518
	8.30	43.2	1.190	1.857	0.455	0.514
	8.40	43.7	1.175	1.844	0.455	0.510
	8.20	43.4	1.203	1.862	0.455	0.519
	8.30	44.0	1.188	1.849	0.455	0.515
	8.40	44.5	1.173	1.837	0.455	0.511
	8.50	45.1	1.159	1.824	0.455	0.508
	8.20	44.2	1.202	1.854	0.455	0.520
	8.30	44.8	1.187	1.841	0.455	0.516
	8.40	45.3	1.172	1.829	0.455	0.513
	8.50	45.9	1.157	1.817	0.455	0.509
	8.20	45.0	1.200	1.846	0.455	0.521
	8.30	45.6	1.185	1.834	0.455	0.517
	8.40	46.2	1.170	1.822	0.455	0.514
	8.50	46.7	1.156	1.809	0.455	0.510
	8.20	45.8	1.199	1.839	0.455	0.522
	8.30	46.4	1.184	1.827	0.455	0.518
	8.40	47.0	1.169	1.814	0.455	0.515
	8.50	47.5	1.154	1.802	0.455	0.511
	8.20	46.6	1.198	1.832	0.455	0.523
	8.30	47.2	1.182	1.820	0.455	0.519
	8.40	47.8	1.167	1.807	0.455	0.515
	8.50	48.4	1.153	1.796	0.455	0.512
	8.60	49.0	1.139	1.784	0.455	0.508
	8.20	47.3	1.196	1.826	0.455	0.524
	8.30	48.0	1.181	1.813	0.455	0.520

8.60	49.8	1.138	1.777	0.455	0.509
8.20	48.1	1.195	1.819	0.455	0.525
8.30	48.7	1.180	1.807	0.455	0.521
8.40	49.4	1.165	1.794	0.455	0.517
8.50	50.0	1.150	1.782	0.455	0.514
8.60	50.6	1.136	1.771	0.455	0.510
8.20	48.9	1.194	1.813	0.455	0.526
8.30	49.5	1.178	1.800	0.455	0.522
8.40	50.2	1.164	1.788	0.455	0.518
8.50	50.8	1.149	1.776	0.455	0.515
8.60	51.4	1.135	1.765	0.455	0.511
8.30	50.3	1.177	1.794	0.455	0.523
8.40	51.0	1.162	1.782	0.455	0.519
8.50	51.6	1.148	1.770	0.455	0.515
8.60	52.3	1.134	1.759	0.455	0.512
8.70	52.9	1.120	1.747	0.455	0.508
8.30	51.1	1.176	1.788	0.455	0.524
8.40	51.8	1.161	1.776	0.455	0.520
8.50	52.4	1.147	1.764	0.455	0.516
8.60	53.1	1.133	1.753	0.455	0.513
8.70	53.7	1.119	1.741	0.455	0.509
8.30	51.9	1.175	1.783	0.455	0.525
8.40	52.6	1.160	1.771	0.455	0.521
8.50	53.2	1.146	1.759	0.455	0.517
8.60	53.9	1.132	1.747	0.455	0.513
8.70	54.6	1.118	1.736	0.455	0.510
8.30	52.7	1.174	1.777	0.455	0.525
8.40	53.4	1.159	1.765	0.455	0.522
8.50	54.1	1.145	1.753	0.455	0.518
8.60	54.7	1.131	1.742	0.455	0.514
8.70	55.4	1.117	1.730	0.455	0.511
8.30	53.5	1.173	1.772	0.455	0.526
8.40	54.2	1.158	1.760	0.455	0.522
8.50	54.9	1.144	1.748	0.455	0.519
8.60	55.6	1.130	1.736	0.455	0.515
8.70	56.2	1.116	1.725	0.455	0.511
8.40	55.0	1.157	1.754	0.455	0.523
8.50	55.7	1.143	1.743	0.455	0.519
8.60	56.4	1.129	1.731	0.455	0.516
8.70	57.1	1.115	1.720	0.455	0.512

Variació a/b per S constant
a= 5.4 / 6.9 / .1

5.40	8.20	41.8	1.207	1.878	0.455	0.517
5.50	8.05	41.8	1.228	1.889	0.455	0.523
5.60	7.92	41.8	1.249	1.899	0.455	0.530
5.70	7.78	41.8	1.270	1.910	0.455	0.536
5.80	7.66	41.8	1.291	1.921	0.455	0.543
5.90	7.53	41.8	1.312	1.933	0.455	0.549
6.00	7.41	41.8	1.333	1.944	0.455	0.555
6.10	7.30	41.8	1.354	1.956	0.455	0.561
6.20	7.19	41.8	1.374	1.967	0.455	0.567
6.30	7.08	41.8	1.395	1.979	0.455	0.573
6.40	6.97	41.8	1.416	1.992	0.455	0.578
6.50	6.87	41.8	1.437	2.004	0.455	0.584
6.60	6.77	41.8	1.458	2.016	0.455	0.590
6.70	6.68	41.8	1.479	2.029	0.455	0.595
6.80	6.58	41.8	1.500	2.041	0.455	0.600
6.90	6.49	41.8	1.521	2.054	0.455	0.606

edifici: mcorsini
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= 1.58
c= .75 d= 0 f= 0
kn= 4.4 2.8 1 4.4 5 2.12 2.8 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.40	8.20	41.9	2.752	1.771	0.455	1.236
Variació a amb b constant						
a= 5.40/ 6.9 / .1						
5.40	8.20	41.9	2.752	1.771	0.455	1.236
5.50	8.20	42.6	2.750	1.763	0.455	1.239
5.60	8.20	43.4	2.748	1.755	0.455	1.243
5.70	8.20	44.2	2.746	1.747	0.455	1.246
5.80	8.20	45.0	2.744	1.740	0.455	1.250
5.90	8.20	45.8	2.743	1.733	0.455	1.253
6.00	8.20	46.6	2.741	1.726	0.455	1.256
6.10	8.20	47.3	2.739	1.719	0.455	1.259
6.20	8.20	48.1	2.738	1.713	0.455	1.263
6.30	8.20	48.9	2.736	1.706	0.455	1.265
6.40	8.20	49.7	2.735	1.700	0.455	1.268
6.50	8.20	50.5	2.733	1.694	0.455	1.271
6.60	8.20	51.3	2.732	1.689	0.455	1.274
6.70	8.20	52.0	2.731	1.683	0.455	1.277
6.80	8.20	52.8	2.729	1.678	0.455	1.279
6.90	8.20	53.6	2.728	1.672	0.455	1.282
Variació a/b per RT constant						
ratio inicial= 1.236 desviació= .01						
a= 5.40/ 6.9 / .1	b= 8.2 / 8.7 / .1					
	8.20	41.9	2.752	1.771	0.455	1.236
	8.20	42.6	2.750	1.763	0.455	1.239
	8.30	43.2	2.715	1.752	0.455	1.230
	8.20	43.4	2.748	1.755	0.455	1.243
	8.30	44.0	2.713	1.744	0.455	1.233
	8.30	44.8	2.711	1.736	0.455	1.237
	8.40	45.3	2.677	1.725	0.455	1.228
	8.30	45.6	2.709	1.728	0.455	1.240
	8.40	46.2	2.675	1.717	0.455	1.231
	8.30	46.4	2.708	1.721	0.455	1.244
	8.40	47.0	2.674	1.710	0.455	1.234
	8.40	47.8	2.672	1.703	0.455	1.237
	8.50	48.4	2.639	1.693	0.455	1.228
	8.40	48.6	2.670	1.697	0.455	1.240
	8.50	49.2	2.637	1.686	0.455	1.231
	8.40	49.4	2.669	1.690	0.455	1.243
	8.50	50.0	2.636	1.680	0.455	1.234
	8.50	50.8	2.634	1.674	0.455	1.237
	8.60	51.4	2.602	1.663	0.455	1.228
	8.50	51.6	2.633	1.668	0.455	1.240
	8.60	52.3	2.601	1.657	0.455	1.231
	8.50	52.4	2.632	1.662	0.455	1.243
	8.60	53.1	2.599	1.651	0.455	1.234
	8.50	53.2	2.630	1.656	0.455	1.245
	8.60	53.9	2.598	1.646	0.455	1.236
	8.70	54.6	2.567	1.636	0.455	1.227
	8.60	54.7	2.597	1.640	0.455	1.239
	8.70	55.4	2.565	1.630	0.455	1.230
	8.60	55.6	2.596	1.635	0.455	1.241
	8.70	56.2	2.564	1.625	0.455	1.232
	8.60	56.4	2.594	1.630	0.455	1.244
	8.70	57.1	2.563	1.620	0.455	1.235

Variació a/b per S constant
a= 5.4 / 6.9 / .1

5.40	8.20	41.8	2.753	1.771	0.455	1.236
5.50	8.05	41.8	2.802	1.780	0.455	1.253
5.60	7.92	41.8	2.852	1.789	0.455	1.271
5.70	7.78	41.8	2.901	1.798	0.455	1.288
5.80	7.66	41.8	2.951	1.807	0.455	1.304
5.90	7.53	41.8	3.000	1.816	0.455	1.321
6.00	7.41	41.8	3.050	1.825	0.455	1.337
6.10	7.30	41.8	3.100	1.835	0.455	1.353
6.20	7.19	41.8	3.149	1.845	0.455	1.369
6.30	7.08	41.8	3.199	1.855	0.455	1.384
6.40	6.97	41.8	3.248	1.865	0.455	1.400
6.50	6.87	41.8	3.298	1.875	0.455	1.415
6.60	6.77	41.8	3.347	1.886	0.455	1.430
6.70	6.68	41.8	3.397	1.896	0.455	1.444
6.80	6.58	41.8	3.446	1.907	0.455	1.459
6.90	6.49	41.8	3.496	1.917	0.455	1.473

edifici: mcorsini
variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= 1.58
c= .797 d= 0 f= 0
[illegible]= 4.4 2.8 1 4.4 5 2.12 2.8 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.40	8.20	41.9	5.460	1.718	0.455	2.512
Variació a amb b constant						
a= 5.40/ 6.9 / .1						
5.40	8.20	41.9	5.460	1.718	0.455	2.512
5.50	8.20	42.6	5.458	1.709	0.455	2.521
5.60	8.20	43.4	5.455	1.702	0.455	2.529
5.70	8.20	44.2	5.453	1.694	0.455	2.537
5.80	8.20	45.0	5.450	1.686	0.455	2.545
5.90	8.20	45.8	5.448	1.679	0.455	2.552
6.00	8.20	46.6	5.446	1.672	0.455	2.559
6.10	8.20	47.3	5.444	1.666	0.455	2.567
6.20	8.20	48.1	5.442	1.659	0.455	2.573
6.30	8.20	48.9	5.440	1.653	0.455	2.580
6.40	8.20	49.7	5.438	1.647	0.455	2.587
6.50	8.20	50.5	5.436	1.641	0.455	2.593
6.60	8.20	51.3	5.435	1.635	0.455	2.599
6.70	8.20	52.0	5.433	1.630	0.455	2.605
6.80	8.20	52.8	5.431	1.624	0.455	2.611
6.90	8.20	53.6	5.430	1.619	0.455	2.617

Variació a/b per RT constant
ratio inicial= 2.512 desviació= .01
a= 5.40/ 6.9 / .1 b= 8.2 / 8.7 / .1

8.20	41.9	5.460	1.718	0.455	2.512
8.20	42.6	5.458	1.709	0.455	2.521
8.30	44.0	5.386	1.691	0.455	2.509
8.30	44.8	5.383	1.683	0.455	2.517
8.40	46.2	5.313	1.665	0.455	2.505
8.40	47.0	5.311	1.658	0.455	2.513
8.40	47.8	5.309	1.651	0.455	2.520
8.50	49.2	5.241	1.635	0.455	2.507
8.50	50.0	5.240	1.628	0.455	2.514
8.50	50.8	5.238	1.622	0.455	2.521
8.60	52.3	5.172	1.607	0.455	2.508
8.60	53.1	5.170	1.601	0.455	2.514
8.60	53.9	5.168	1.595	0.455	2.521
8.70	55.4	5.104	1.580	0.455	2.507
8.70	56.2	5.103	1.575	0.455	2.513
8.70	57.1	5.101	1.570	0.455	2.519

Variació a/b per S constant
a= 5.4 / 6.9 / .1

5.40	8.20	41.8	5.462	1.718	0.455	2.513
5.50	8.05	41.8	5.562	1.726	0.455	2.550
5.60	7.92	41.8	5.662	1.733	0.455	2.587
5.70	7.78	41.8	5.761	1.741	0.455	2.623
5.80	7.66	41.8	5.861	1.749	0.455	2.658
5.90	7.53	41.8	5.961	1.758	0.455	2.693
6.00	7.41	41.8	6.060	1.766	0.455	2.728
6.10	7.30	41.8	6.160	1.775	0.455	2.762
6.20	7.19	41.8	6.260	1.784	0.455	2.796
6.30	7.08	41.8	6.360	1.792	0.455	2.829
6.40	6.97	41.8	6.459	1.802	0.455	2.862
6.50	6.87	41.8	6.559	1.811	0.455	2.894
6.60	6.77	41.8	6.659	1.820	0.455	2.926
6.70	6.68	41.8	6.758	1.830	0.455	2.957
6.80	6.58	41.8	6.858	1.839	0.455	2.988
6.90	6.49	41.8	6.958	1.849	0.455	3.019

edifici: mcorsini
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= 1.58
c= .8 d= 0 f= 0
kn= 4.4 2.8 1 4.4 5 .47 .49 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0
0
ckn= .1 .1 .6 .1 .1 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .8 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	5.40	8.20	41.9	7.104	1.461	0.455	3.707

edifici: mcorsini
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= 1.58
c= 1 d= 0 f= 0
kn= 4.4 .49 1 4.4 5 .47 .49 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0
0
ckn= .1 .2 .6 .1 .1 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 0 0 0
alfa= 1.2 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	5.40	8.20	41.9	1.248	1.554	0.455	0.621

edifici: mcorsini
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= 1.58
c= .75 d= 0 f= 0
kn= 4.4 .49 1 4.4 5 .47 .49 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0
0
ckn= .1 .2 .6 .1 .1 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 0 0
alfa= 1 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	5.40	8.20	41.9	2.873	1.468	0.455	1.494

edifici: mcorsini
variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= 1.58
c= .797 d= 0 f= 0
kn= 4.4 2.8 1 4.4 5 .47 .49 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0
0
ckn= .1 .1 .6 .1 .1 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 0 0
alfa= .9 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	5.40	8.20	41.9	5.460	1.514	0.455	2.772

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44 REM *************** ESQUELET DE L'EDIFICI:mcorsini  SSTU            **********
******
45 REM
50 DO=CR1*(.4*A*.7+1.726*A*C*.7)        'façana 1 - Capt.transp. CRi*s*t
52 DA=CR2*0                             'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*0                             'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                             'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*2.4*.7                       'patis    - Capt.transp. CRi*s*t
60 DP=CR1*(1.01*A*CK2*.6+.259*A*CK3*.6)'façana 1 - Capt.opacs  CRi*s*abs*ck
62 DD=CR2*0                             'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*0                             'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*0                             'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*0                             'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=2.4*0                             'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=(A*B-.48-.36*A)                 'superficie en planta   funció a i b
74 DU=A1*( 2.12*A*K1+1.01*A*K2+.26*A*K3) 'façana 1 - Transmissió  ai*s*kn
76 DK=A2*0                              'façana 2 - Transmissió  ai*s*kn
78 DL=A3*0                              'façana 3 - Transmissió  ai*s*kn
80 DM=A4*0                              'façana 4 - Transmissió  ai*s*kn
82 DH=.8*(.26*A*K4+.24*K5+.14*A*K5+2.7*A*K6+3.4*K7)      'patis    - Transmissi
  ai*s*kn
84 DV=0                                 'terra    - Transmissió  s*kn
86 DW=(1.68*K8+5.4*B*K9+2*(A*B-.48-.36*A)*K10)                          'locals
  - Transmissió  s*kn
88 DX=0                                 'coberta  - Transmissió  s*kn
89 RETURN
90 B=(42.32+.36*A)/A                                  'valor b per S constant   (funci
 de a)
```

Rv= 2050 D= 0 rh= 20.069
c= .87 d= 0 f= 0
kn= 4.4 2.8 1 4.4 5 2.12 2.8 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.40	8.20	41.9	5.512	1.5[illegible]	5.780	0.750
Variació a amb b constant						
a= 5.40/ 6.9 / .1						
5.40	8.20	41.9	5.512	1.5[illegible]	5.780	0.750
5.50	8.20	42.6	5.510	1.559	5.780	0.750
5.60	8.20	43.4	5.508	1.552	5.780	0.751
5.70	8.20	44.2	5.506	1.545	5.780	0.751
5.80	8.20	45.0	5.504	1.538	5.780	0.751
5.90	8.20	45.8	5.502	1.533	5.780	0.752
6.00	8.20	46.6	5.500	1.527	5.780	0.752
6.10	8.20	47.3	5.498	1.521	5.780	0.753
6.20	8.20	48.1	5.496	1.516	5.780	0.753
6.30	8.20	48.9	5.495	1.510	5.780	0.753
6.40	8.20	49.7	5.493	1.505	5.780	0.754
6.50	8.20	50.5	5.492	1.500	5.780	0.754
6.60	8.20	51.3	5.490	1.495	5.780	0.754
6.70	8.20	52.0	5.489	1.491	5.780	0.754
6.80	8.20	52.8	5.487	1.486	5.780	0.755
6.90	8.20	53.6	5.486	1.481	5.780	0.755
Variació a/b per RT constant						
ratio inicial= .75 desviació= .01						
a= 5.40/ 6.9 / .1	b= 8.2 / 8.7 / .1					
	8.20	41.9	5.512	1.5[illegible]	5.780	0.750
	8.30	42.4	5.442	1.556	5.780	0.741
	8.20	42.6	5.510	1.559	5.780	0.750
	8.30	43.2	5.440	1.54[illegible]	5.780	0.742
	8.20	43.4	5.508	1.55[illegible]	5.780	0.751
	8.30	44.0	5.437	1.54[illegible]	5.780	0.742
	8.20	44.2	5.506	1.54[illegible]	5.780	0.751
	8.30	44.8	5.435	1.53[illegible]	5.780	0.743
	8.20	45.0	5.504	1.53[illegible]	5.780	0.751
	8.30	45.6	5.434	1.53[illegible]	5.780	0.743
	8.20	45.8	5.502	1.53[illegible]	5.780	0.752
	8.30	46.4	5.432	1.52[illegible]	5.780	0.743
	8.20	46.6	5.500	1.52[illegible]	5.780	0.752
	8.30	47.2	5.430	1.51[illegible]	5.780	0.744
	8.20	47.3	5.498	1.51[illegible]	5.780	0.753
	8.30	48.0	5.428	1.51[illegible]	5.780	0.744
	8.20	48.1	5.496	1.51[illegible]	5.780	0.753
	8.30	48.7	5.426	1.50[illegible]	5.780	0.744
	8.20	48.9	5.495	1.50[illegible]	5.780	0.753
	8.30	49.5	5.425	1.50[illegible]	5.780	0.745
	8.20	49.7	5.493	1.50[illegible]	5.780	0.754
	8.30	50.3	5.423	1.49[illegible]	5.780	0.745
	8.20	50.5	5.492	1.50[illegible]	5.780	0.754
	8.30	51.1	5.422	1.49[illegible]	5.780	0.745
	8.20	51.3	5.490	1.49[illegible]	5.780	0.754
	8.30	51.9	5.420	1.48[illegible]	5.780	0.746
	8.20	52.0	5.489	1.49[illegible]	5.780	0.754
	8.30	52.7	5.419	1.48[illegible]	5.780	0.746
	8.20	52.8	5.487	1.48[illegible]	5.780	0.755
	8.30	53.5	5.417	1.47[illegible]	5.780	0.746
	8.20	53.6	5.486	1.481	5.780	0.755
	8.30	54.3	5.416	1.471	5.780	0.746

Variació a/b per S constant
a= 5.4 / 6.9 / .1

5.40	8.20	41.8	5.514	1.567	5.780	0.750
5.50	8.05	41.8	5.615	1.575	5.780	0.763
5.60	7.92	41.8	5.716	1.584	5.780	0.776
5.70	7.78	41.8	5.817	1.593	5.780	0.789
5.80	7.66	41.8	5.918	1.602	5.780	0.801
5.90	7.53	41.8	6.019	1.611	5.780	0.814
6.00	7.41	41.8	6.120	1.620	5.780	0.827
6.10	7.30	41.8	6.221	1.630	5.780	0.839
6.20	7.19	41.8	6.322	1.639	5.780	0.852
6.30	7.08	41.8	6.423	1.649	5.780	0.864
6.40	6.97	41.8	6.525	1.659	5.780	0.877
6.50	6.87	41.8	6.626	1.669	5.780	0.889
6.60	6.77	41.8	6.727	1.679	5.780	0.901
6.70	6.68	41.8	6.828	1.689	5.780	0.914
6.80	6.58	41.8	6.929	1.700	5.780	0.926
6.90	6.49	41.8	7.030	1.710	5.780	0.938

edifici: mcorsini
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 3.604
c= .187 d= 0 f= 0
kn= 4.4 2.8 1 4.4 5 2.12 2.8 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 0 0 0
alfa= .8 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.40	8.20	41.9	1.889	1.513	1.038	0.740
Variació a amb b constant						
a= 5.40/ 6.9 / .1						
5.40	8.20	41.9	1.889	1.513	1.038	0.740
5.50	8.20	42.6	1.888	1.506	1.038	0.742
5.60	8.20	43.4	1.887	1.499	1.038	0.743
5.70	8.20	44.2	1.885	1.492	1.038	0.745
5.80	8.20	45.0	1.884	1.486	1.038	0.746
5.90	8.20	45.8	1.883	1.480	1.038	0.747
6.00	8.20	46.6	1.881	1.474	1.038	0.749
6.10	8.20	47.3	1.880	1.468	1.038	0.750
6.20	8.20	48.1	1.879	1.463	1.038	0.751
6.30	8.20	48.9	1.878	1.457	1.038	0.752
6.40	8.20	49.7	1.877	1.452	1.038	0.753
6.50	8.20	50.5	1.876	1.447	1.038	0.754
6.60	8.20	51.3	1.875	1.442	1.038	0.756
6.70	8.20	52.0	1.874	1.437	1.038	0.757
6.80	8.20	52.8	1.873	1.433	1.038	0.758
6.90	8.20	53.6	1.872	1.428	1.038	0.759
Variació a/b per RT constant						
ratio inicial= .74 desviació= .01						
a= 5.40/ 6.9 / .1	b= 8.2 / 8.7 / .1					
	8.20	41.9	1.889	1.513	1.038	0.740
	8.30	42.4	1.865	1.503	1.038	0.734
	8.20	42.6	1.888	1.506	1.038	0.742
	8.30	43.2	1.864	1.496	1.038	0.735
	8.20	43.4	1.887	1.499	1.038	0.743
	8.30	44.0	1.863	1.489	1.038	0.737
	8.20	44.2	1.885	1.492	1.038	0.745
	8.30	44.8	1.861	1.482	1.038	0.738
	8.40	45.3	1.838	1.473	1.038	0.731
	8.20	45.0	1.884	1.486	1.038	0.746
	8.30	45.6	1.860	1.476	1.038	0.739

8.40	46.2	1.837	1.466	1.038	0.733
8.20	45.8	1.883	1.480	1.038	0.747
8.30	46.4	1.859	1.470	1.038	0.741
8.40	47.0	1.835	1.460	1.038	0.734
8.20	46.6	1.881	1.474	1.038	0.749
8.30	47.2	1.858	1.464	1.038	0.742
8.40	47.8	1.834	1.454	1.038	0.735
8.30	48.0	1.856	1.458	1.038	0.743
8.40	48.6	1.833	1.449	1.038	0.737
8.30	48.7	1.855	1.453	1.038	0.744
8.40	49.4	1.832	1.443	1.038	0.738
8.50	50.0	1.809	1.434	1.038	0.731
8.30	49.5	1.854	1.447	1.038	0.746
8.40	50.2	1.831	1.438	1.038	0.739
8.50	50.8	1.808	1.429	1.038	0.733
8.30	50.3	1.853	1.442	1.038	0.747
8.40	51.0	1.830	1.433	1.038	0.740
8.50	51.6	1.807	1.423	1.038	0.734
8.30	51.1	1.852	1.437	1.038	0.748
8.40	51.8	1.829	1.428	1.038	0.741
8.50	52.4	1.806	1.418	1.038	0.735
8.30	51.9	1.851	1.432	1.038	0.749
8.40	52.6	1.828	1.423	1.038	0.742
8.50	53.2	1.805	1.414	1.038	0.736
8.40	53.4	1.827	1.418	1.038	0.743
8.50	54.1	1.804	1.409	1.038	0.737
8.60	54.7	1.782	1.400	1.038	0.731
8.40	54.2	1.826	1.414	1.038	0.744
8.50	54.9	1.804	1.404	1.038	0.738
8.60	55.6	1.781	1.395	1.038	0.732
8.40	55.0	1.825	1.409	1.038	0.745
8.50	55.7	1.803	1.400	1.038	0.739
8.60	56.4	1.781	1.391	1.038	0.733

Variació a/b per S constant
a= 5.4 / 6.9 / .1

5.40	8.20	41.8	1.890	1.513	1.038	0.740
5.50	8.05	41.8	1.924	1.521	1.038	0.751
5.60	7.92	41.8	1.958	1.528	1.038	0.762
5.70	7.78	41.8	1.992	1.536	1.038	0.773
5.80	7.66	41.8	2.026	1.544	1.038	0.784
5.90	7.53	41.8	2.060	1.553	1.038	0.795
6.00	7.41	41.8	2.094	1.561	1.038	0.805
6.10	7.30	41.8	2.128	1.570	1.038	0.815
6.20	7.19	41.8	2.162	1.578	1.038	0.826
6.30	7.08	41.8	2.196	1.587	1.038	0.836
6.40	6.97	41.8	2.229	1.596	1.038	0.846
6.50	6.87	41.8	2.263	1.605	1.038	0.856
6.60	6.77	41.8	2.297	1.614	1.038	0.866
6.70	6.68	41.8	2.331	1.623	1.038	0.876
6.80	6.58	41.8	2.365	1.633	1.038	0.885
6.90	6.49	41.8	2.399	1.642	1.038	0.895

Edifici: mcorsini
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 11.955
c= .83 d= 0 f= 0
kn= 4.4 2.8 1 4.4 5 2.12 2.8 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0
0
Ukn= .1 .1 .6 .1 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.

Edifici original

5.40	8.20	41.9	7.155	1.620	3.443	1.413

Variació a amb b constant
a= 5.40/ 6.9 / .1

5.40	8.20	41.9	7.155	1.620	3.443	1.413
5.50	8.20	42.6	7.153	1.613	3.443	1.414
5.60	8.20	43.4	7.150	1.606	3.443	1.416
5.70	8.20	44.2	7.148	1.599	3.443	1.417
5.80	8.20	45.0	7.145	1.593	3.443	1.418
5.90	8.20	45.8	7.143	1.587	3.443	1.420
6.00	8.20	46.6	7.141	1.581	3.443	1.421
6.10	8.20	47.3	7.139	1.575	3.443	1.422
6.20	8.20	48.1	7.137	1.569	3.443	1.423
6.30	8.20	48.9	7.135	1.564	3.443	1.425
6.40	8.20	49.7	7.133	1.559	3.443	1.426
6.50	8.20	50.5	7.132	1.553	3.443	1.427
6.60	8.20	51.3	7.130	1.549	3.443	1.428
6.70	8.20	52.0	7.128	1.544	3.443	1.429
6.80	8.20	52.8	7.126	1.539	3.443	1.430
6.90	8.20	53.6	7.125	1.535	3.443	1.431

Variació a/b per RT constant
ratio inicial= 1.413 desviació= .01
a= 5.40/ 6.9 / .1 b= 8.2 / 8.7 / .1

8.20	41.9	7.155	1.620	3.443	1.413
8.20	42.6	7.153	1.613	3.443	1.414
8.20	43.4	7.150	1.606	3.443	1.416
8.20	44.2	7.148	1.599	3.443	1.417
8.20	45.0	7.145	1.593	3.443	1.418
8.30	45.6	7.055	1.581	3.443	1.404
8.20	45.8	7.143	1.587	3.443	1.420
8.30	46.4	7.052	1.575	3.443	1.405
8.20	46.6	7.141	1.581	3.443	1.421
8.30	47.2	7.050	1.569	3.443	1.406
8.20	47.3	7.139	1.575	3.443	1.422
8.30	48.0	7.048	1.564	3.443	1.407
8.30	48.7	7.046	1.558	3.443	1.408
8.30	49.5	7.044	1.553	3.443	1.410
8.30	50.3	7.043	1.547	3.443	1.411
8.30	51.1	7.041	1.542	3.443	1.412
8.30	51.9	7.039	1.538	3.443	1.413
8.30	52.7	7.037	1.533	3.443	1.414
8.30	53.5	7.036	1.528	3.443	1.415
8.30	54.3	7.034	1.524	3.443	1.416

Variació a/b per S constant
a= 5.4 / 6.9 / .1

5.40	8.20	41.8	7.158	1.620	3.443	1.413
5.50	8.05	41.8	7.289	1.630	3.443	1.436
5.60	7.92	41.8	7.421	1.639	3.443	1.460
5.70	7.78	41.8	7.552	1.649	3.443	1.483
5.80	7.66	41.8	7.684	1.659	3.443	1.505
5.90	7.53	41.8	7.815	1.669	3.443	1.528
6.00	7.41	41.8	7.947	1.680	3.443	1.551
6.10	7.30	41.8	8.078	1.690	3.443	1.573
6.20	7.19	41.8	8.210	1.701	3.443	1.596
6.30	7.08	41.8	8.341	1.712	3.443	1.618
6.40	6.97	41.8	8.473	1.722	3.443	1.640
6.50	6.87	41.8	8.604	1.733	3.443	1.662
6.60	6.77	41.8	8.736	1.745	3.443	1.683
6.70	6.68	41.8	8.867	1.756	3.443	1.705
6.80	6.58	41.8	8.999	1.767	3.443	1.727
6.90	6.49	41.8	9.130	1.778	3.443	1.748

edifici: mcorsini
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 16.518
c= .76 d= 0 f= 0
h= 4.4 2.8 1 4.4 5 2.12 2.8 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 0 0
alfa= .95 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.40	8.20	41.9	6.250	1.593	4.757	0.984
Variació a amb b constant						
a= 5.40/ 6.9 / .1						
5.40	8.20	41.9	6.250	1.593	4.757	0.984
5.50	8.20	42.6	6.248	1.586	4.757	0.984
5.60	8.20	43.4	6.245	1.579	4.757	0.985
5.70	8.20	44.2	6.243	1.572	4.757	0.986
5.80	8.20	45.0	6.241	1.566	4.757	0.987
5.90	8.20	45.8	6.239	1.560	4.757	0.987
6.00	8.20	46.6	6.237	1.554	4.757	0.988
6.10	8.20	47.3	6.235	1.548	4.757	0.988
6.20	8.20	48.1	6.233	1.543	4.757	0.989
6.30	8.20	48.9	6.232	1.537	4.757	0.990
6.40	8.20	49.7	6.230	1.532	4.757	0.990
6.50	8.20	50.5	6.228	1.527	4.757	0.991
6.60	8.20	51.3	6.227	1.522	4.757	0.991
6.70	8.20	52.0	6.225	1.517	4.757	0.992
6.80	8.20	52.8	6.224	1.513	4.757	0.992
6.90	8.20	53.6	6.222	1.508	4.757	0.993
Variació a/b per RT constant						
ratio inicial= .984 desviació= .01						
a= 5.40/ 6.9 / .1	b= 8.2 / 8.7 / .1					
	8.20	41.9	6.250	1.593	4.757	0.984
	8.20	42.6	6.248	1.586	4.757	0.984
	8.20	43.4	6.245	1.579	4.757	0.985
	8.20	44.2	6.243	1.572	4.757	0.986
	8.30	44.8	6.164	1.561	4.757	0.975
	8.20	45.0	6.241	1.566	4.757	0.987
	8.30	45.6	6.162	1.555	4.757	0.976
	8.20	45.8	6.239	1.560	4.757	0.987
	8.30	46.4	6.160	1.549	4.757	0.976
	8.20	46.6	6.237	1.554	4.757	0.988
	8.30	47.2	6.158	1.543	4.757	0.977
	8.20	47.3	6.235	1.548	4.757	0.988
	8.30	48.0	6.156	1.537	4.757	0.977
	8.20	48.1	6.233	1.543	4.757	0.989
	8.30	48.7	6.154	1.532	4.757	0.978
	8.20	48.9	6.232	1.537	4.757	0.990
	8.30	49.5	6.152	1.526	4.757	0.979
	8.20	49.7	6.230	1.532	4.757	0.990
	8.30	50.3	6.151	1.521	4.757	0.979
	8.20	50.5	6.228	1.527	4.757	0.991
	8.30	51.1	6.149	1.516	4.757	0.980
	8.20	51.3	6.227	1.522	4.757	0.991
	8.30	51.9	6.147	1.511	4.757	0.981
	8.20	52.0	6.225	1.517	4.757	0.992
	8.30	52.7	6.146	1.506	4.757	0.981
	8.20	52.8	6.224	1.513	4.757	0.992
	8.30	53.5	6.144	1.502	4.757	0.981
	8.20	53.6	6.222	1.508	4.757	0.993
	8.30	54.3	6.143	1.497	4.757	0.982

Variació a/b per S constant
a= 5.4 / 6.9 / .1

5.40	8.20	41.8	6.252	1.593	4.757	0.984
5.50	8.05	41.8	6.367	1.602	4.757	1.001
5.60	7.92	41.8	6.482	1.612	4.757	1.017
5.70	7.78	41.8	6.597	1.621	4.757	1.034
5.80	7.66	41.8	6.711	1.630	4.757	1.050
5.90	7.53	41.8	6.826	1.640	4.757	1.067
6.00	7.41	41.8	6.941	1.650	4.757	1.083
6.10	7.30	41.8	7.055	1.660	4.757	1.099
6.20	7.19	41.8	7.170	1.670	4.757	1.115
6.30	7.08	41.8	7.285	1.680	4.757	1.131
6.40	6.97	41.8	7.400	1.691	4.757	1.147
6.50	6.87	41.8	7.514	1.701	4.757	1.163
6.60	6.77	41.8	7.629	1.712	4.757	1.179
6.70	6.68	41.8	7.744	1.723	4.757	1.195
6.80	6.58	41.8	7.859	1.733	4.757	1.210
6.90	6.49	41.8	7.973	1.744	4.757	1.226

edifici: bio mcorsini
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 20.069
c= .87 d= 0 f= 0
kn= 4.4 2.8 1 4.4 5 .47 .49 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0
0
ckn= .1 .1 .6 .1 .1 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .9 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	5.40	8.20	41.9	5.512	1.363	5.780	0.771

edifici: bio mcorsini
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 3.604
c= .187 d= 0 f= 0
kn= 4.4 .49 1 4.4 5 .47 .49 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0
0
ckn= .1 .2 .6 .1 .1 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 0 0 0
alfa= .8 0 0 0

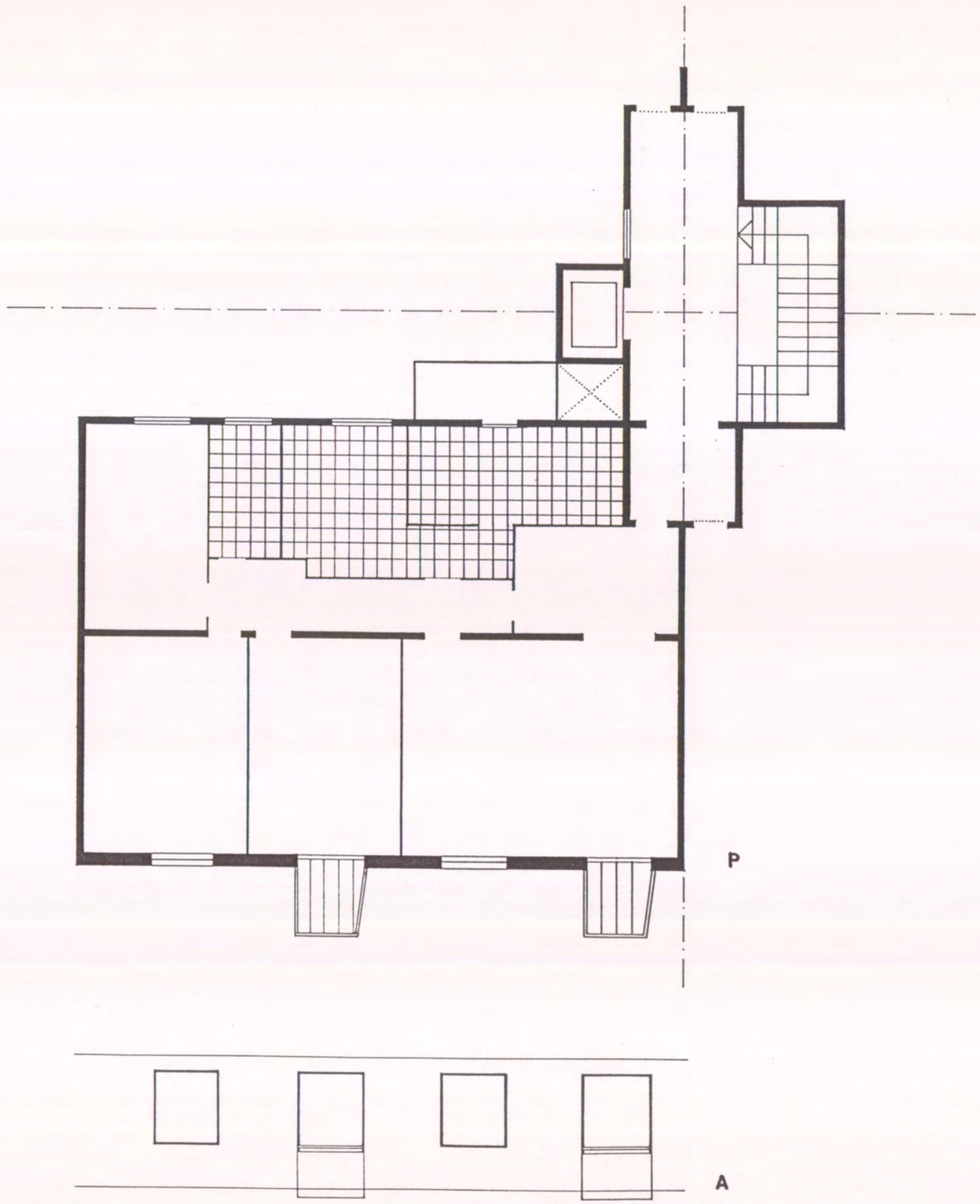
	a	b	S	I	Gt	Gv	R.T.
Edifici original	5.40	8.20	41.9	2.058	1.229	1.038	0.907

edifici: bio mcorsini
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 11.955
c= .83 d= 0 f= 0
kn= 4.4 .49 1 4.4 5 .47 .49 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0
0
ckn= .1 .2 .6 .1 .1 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 0 0
alfa= 1 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	5.40	8.20	41.9	7.454	1.316	3.443	1.566

edifici: bio mcorsini
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 16.518
c= .95 d= 0 f= 0
kn= 4.4 2.8 1 4.4 5 .47 .49 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0
0
ckn= .1 .1 .6 .1 .1 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 0 0
alfa= .95 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	5.40	8.20	41.9	7.301	1.390	4.757	1.187



2.I.D.3

VIV. PASEO MARAGALL (B)

J.M. RIBAS, F. MITJANS
A. PERPIÑA, O. BOHIGAS,
J.M. MARTORELL, J. ALEMANY

DATOS GEOMETRICOS

a = 12,20 m (12,20/11,00 m)
b = 11,00 m (11,00/8,00 m)
S = 107,60 m² V = 322,80 m3
Slt/S = 0,14 Slt/Slo = 0,68

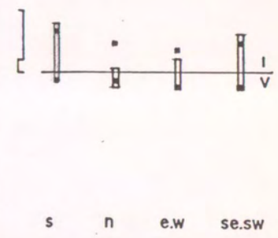
RATIOS TERMICOS (°C)

	sin aislar	aislado
invierno		
S	3,85	4,14
N	0,52	0,40
E	1,51	1,12
W	1,51	1,12
NE	2,92	3,14
SW	2,92	3,14
verano		
S	0,84	0,85
N	1,71	1,23
E	1,62	1,11
W	1,62	1,11
SE	1,20	1,23
SW	1,20	1,23

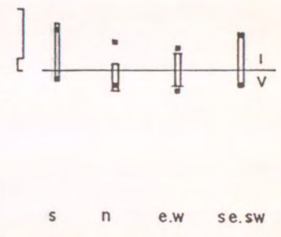
MASA TERMICA (kcal/°C m3)

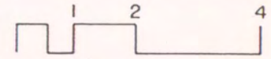
29,95 31,82

RT CON



RT SIN





BARCELONA 85·88
E.T.S.A.B. U.P.C.

TESIS DOCTORAL · BIOCLIMATISMO Y TIPO ARQUITECTONICO EN CATALUÑA EN EL PERIODO 1930 1985 · VICTOR SEGUI SANTANA

	VIVIENDAS PSO MARAGALL (B) J.M RIBAS. F MITJANS. A. PERPIÑA O BOHIGAS. JM MARTORELL. J ALEMANY	2103

CAPTORES TRANSPARENTES	1	V. SUR 1	S	0.872A
			t	0.7
			CR	CR1
	2	V. PATIO	S	0.3795A
			t	0.7
			CR	PATI
	3		S	
			t	
			CR	
	4		S	
			t	
			CR	
	5		S	
			t	
			CR	
	6		S	
			t	
			CR	
CAPTORES OPACOS	1	P. SUR	S	1.8278A
			CK	CK2
			α	0.6
			CR	CR1
	2		S	
			CK	
			α	
			CR	
	3		S	
			CK	
			α	
			CR	
	4		S	
			CK	
			α	
			CR	
	5		S	
			CK	
			α	
			CR	
	6		S	
			CK	
			α	
			CR	
	7		S	
			CK	
			α	
			CR	
	8		S	
			CK	
			α	
			CR	
	9		S	
			CK	
			α	
			CR	
CUBIERTA	1		S	
			CK	
			α	

TRANSMISION FACHADAS	1	V. SUR 1	S	0.872A
			K	K1
			K	X1
	2	P. SUR	S	1.8278A
			K	K2
			K	X1
	3	V. PATIO 1	S	0.16A
			K	K3
			K	PATIO
	4	V. PATIO 2	S	0.2188A
			K	K4
			K	PATIO
	5	P. PATIO	S	2.055A
			K	K5
			K	PATIO
	6		S	
			K	
			K	
	7		S	
			K	
			K	
	8		S	
			K	
			K	
	9		S	
			K	
			K	
	10		S	
			K	
			K	
	11		S	
			K	
			K	
	12		S	
			K	
			K	
	13		S	
			K	
			K	
	14		S	
			K	
			K	
	15		S	
			K	
			K	
	16		S	
			K	
			K	

INFILTRACIONES			S	16.74
			K	0.6223
SEPARACION TERRENO	1		S	
			K	
	2		S	
			K	
SEPARACION OTROS LOCALES	1	MEDIAN 1	S	0.044A
			K	K6
	2	MEDIAN 2	S	7.32B
			K	K6
	3	PUERTA	S	1.47
			K	K7
	4	FORJADOS	S	1.95993AB
			K	K8
	5		S	
			K	
TRANSMISION PIEL HORIZONT. CUBIERTA	1		S	
			K	
	2		S	
			K	

SUPERFICIE EN PLANTA	(0.80178 A.B)

VIVIENDAS PSO MARAGALL (B) J M RIBAS F. MITJANS A. PERPIÑA. O. BOHIGAS J.M MARTORELL. J ALEMANY 2103

VARIABLES GEOMETRICAS	A	B	Amin.	Amax.	I	Bmin.	Bmax.	I	DESVIACION	B para S Cte.	VOLUMEN	SUPERFICIE
	12.2	11	11	12.2	0.2	8	11	0.2	0.01	134.2/A=B	322.8	107.6

R=2800	INVIERNO	K_1	K_2	K_3	K_4	K_5	K_6	K_7	K_8	K_9	K_{10}	K_{11}	K_{12}	K_{13}	K_{14}	K_{15}	K_{16}	K_{17}	K_{18}	VERANO	R=2050
		4.4	1.25	4.4	5	2.1	1.7	1.6	1.34												

O	RH	COEFICIENTES								COEFICIENTES DE TRANSMISION K																				RH	O
S	0.6223	CR_1	1	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	CR_4	CR_3	CR_2	CR_1	13.078	S
		K_1	0.8	K_2		K_3		K_4																							
		C		D		F		G		4.4	1.25	4.4	5	0.46	1.7	1.6	1.34														
																												0.9			
																												D			
N	0.6223	CR_1	0.137	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	CR_4	CR_3	CR_2	CR_1	2.349	N
		K_1	1.2	K_2		K_3		K_4																							
		C		D		F		G		4.4	0.4	4.4	5	0.46	1.7	1.6	1.34														
																												0.8			
																												D			
E	0.6223	CR_1	0.3977	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	CR_4	CR_3	CR_2	CR_1	7.790	E
		K_1	1	K_2		K_3		K_4																							
		C		D		F		G		4.4	0.4	4.4	5	0.46	1.7	1.6	1.34														
																												1.345			
																												D			
W		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	CR_4	CR_3	CR_2	CR_1		W
		K_1		K_2		K_3		K_4																							
		C		D		F		G																							
																												1			
																												D			
SE	0.6223	CR_1	0.768	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	CR_4	CR_3	CR_2	CR_1	10.764	SE
		K_1	0.9	K_2		K_3		K_4																							
		C		D		F		G		4.4	1.25	4.4	5	0.46	1.7	1.6	1.34														
																												1.2469			
																												0.95			
																												D			
SW		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	CR_4	CR_3	CR_2	CR_1		SW
		K_1		K_2		K_3		K_4																							
		C		D		F		G																							
																												D			

```
44 REM *************** ESQUELET DE L'EDIFICI:  maragall H  ******************
45 REM
50 DO=CR1*.872*A*.7              'façana 1 - Capt.transp. CRi*s*t
52 DA=CR2*O                      'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3* O                     'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*O                      'façana 4 - Capt.transp. CRi*s*t
58 DE=.05* .3795*A*.7            'patis    - Capt.transp. CRi*s*t
60 DP=CR1*1.8278*A*CK2*.6        'façana 1 - Capt.opacs  CRi*s*abs*ckn
62 DD=CR2*O                      'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*O                      'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*O                      'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*O                      'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=.52*O                      'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ= .80178*A*B        'superfície en planta   funció a i b
74 DU=A1*(.872*A*K1+1.8278*A*K2)             'façana 1 - Transmissió  ai*s*kn
76 DK=A2*O                       'façana 2 - Transmissió  ai*s*kn
78 DL=A3*O                       'façana 3 - Transmissió  ai*s*kn
80 DM=A4*O                       'façana 4 - Transmissió  ai*s*kn
82 DH=.8*(.16*A*K3+.2188*A*K4+2.055*A*K5)                    'patis    - Transmi
sió  ai*s*kn
84 DV=O                          'terra    - Transmissió  s*kn
86 DW= .044*A*K6+7.32*B*K6+1.47*K7+1.95993*A*B*K8                'locals   - Tra
smissió  s*kn
88 DX=  O                        'coberta  - Transmissió  s*kn
89 RETURN
90 B=134.2/A       'valor b per S constant   (funció de a)
```

variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= .6223
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 5 2.1 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0

ckn= .1 .6 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .8 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
12.20	11.00	107.6	5.651	1.286	0.179	3.858
Variació a amb b constant						
a= 11.00/ 12.2 / .2						
11.00	11.00	97.0	5.651	1.314	0.179	3.785
11.20	11.00	98.8	5.651	1.309	0.179	3.798
11.40	11.00	100.5	5.651	1.304	0.179	3.810
11.60	11.00	102.3	5.651	1.299	0.179	3.823
11.80	11.00	104.1	5.651	1.294	0.179	3.835
12.00	11.00	105.8	5.651	1.290	0.179	3.846
12.20	11.00	107.6	5.651	1.286	0.179	3.858
Variació a/b per RT constant						
ratio inicial= 3.858 desviació= .01						
a= 11.00/ 12.2 / .2	b= 8 / 11 / .2					
10.80		97.0	5.756	1.316	0.179	3.850
10.80		98.7	5.756	1.311	0.179	3.863
11.00		107.6	5.651	1.286	0.179	3.858
Variació a/b per S constant						
a= 11 / 12.2 / .2						
11.00	12.20	107.6	5.096	1.277	0.179	3.499
11.20	11.98	107.6	5.188	1.278	0.179	3.560
11.40	11.77	107.6	5.281	1.279	0.179	3.621
11.60	11.57	107.6	5.374	1.280	0.179	3.681
11.80	11.37	107.6	5.466	1.282	0.179	3.740
12.00	11.18	107.6	5.559	1.284	0.179	3.799
12.20	11.00	107.6	5.651	1.286	0.179	3.858

edifici: maragall
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= .6223
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 5 2.1 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0

ckn= .1 .6 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 0 0 0
alfa= 1.2 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
12.20	11.00	107.6	0.825	1.378	0.179	0.529
Variació a amb b constant						
a= 11.00/ 12.2 / .2						
11.00	11.00	97.0	0.825	1.406	0.179	0.520
11.20	11.00	98.8	0.825	1.401	0.179	0.521
11.40	11.00	100.5	0.825	1.396	0.179	0.523
11.60	11.00	102.3	0.825	1.391	0.179	0.525
11.80	11.00	104.1	0.825	1.387	0.179	0.526
12.00	11.00	105.8	0.825	1.382	0.179	0.528
12.20	11.00	107.6	0.825	1.378	0.179	0.529

Variació a/b per RT constant
ratio inicial= .529 desviació= .01
a= 11.00/ 12.2 / .2 b= 8 / 11 / .2

10.60	93.5	0.856	1.424	0.179	0.533
10.80	95.3	0.840	1.415	0.179	0.526
11.00	97.0	0.825	1.406	0.179	0.520
10.60	95.2	0.856	1.419	0.179	0.535
10.80	97.0	0.840	1.410	0.179	0.528
11.00	98.8	0.825	1.401	0.179	0.521
10.60	96.9	0.856	1.414	0.179	0.537
10.80	98.7	0.840	1.405	0.179	0.530
11.00	100.5	0.825	1.396	0.179	0.523
10.60	98.6	0.856	1.409	0.179	0.538
10.80	100.4	0.840	1.400	0.179	0.531
11.00	102.3	0.825	1.391	0.179	0.525
10.80	102.2	0.840	1.396	0.179	0.533
11.00	104.1	0.825	1.387	0.179	0.526
10.80	103.9	0.840	1.391	0.179	0.534
11.00	105.8	0.825	1.382	0.179	0.528
10.80	105.6	0.840	1.387	0.179	0.536
11.00	107.6	0.825	1.378	0.179	0.529

Variació a/b per S constant
a= 11 / 12.2 / .2

11.00	12.20	107.6	0.744	1.360	0.179	0.483
11.20	11.98	107.6	0.757	1.363	0.179	0.491
11.40	11.77	107.6	0.771	1.366	0.179	0.498
11.60	11.57	107.6	0.784	1.368	0.179	0.506
11.80	11.37	107.6	0.798	1.372	0.179	0.514
12.00	11.18	107.6	0.811	1.375	0.179	0.522
12.20	11.00	107.6	0.825	1.378	0.179	0.529

edifici: maragall
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= .6223
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 5 2.1 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0

ckn= .1 .6 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
12.20	11.00	107.6	2.283	1.332	0.179	1.510
Variació a amb b constant						
a= 11.00/ 12.2 / .2						
11.00	11.00	97.0	2.283	1.360	0.179	1.483
11.20	11.00	98.8	2.283	1.355	0.179	1.488
11.40	11.00	100.5	2.283	1.350	0.179	1.492
11.60	11.00	102.3	2.283	1.345	0.179	1.497
11.80	11.00	104.1	2.283	1.341	0.179	1.502
12.00	11.00	105.8	2.283	1.336	0.179	1.506
12.20	11.00	107.6	2.283	1.332	0.179	1.510
Variació a/b per RT constant						
ratio inicial= 1.51 desviació= .01						
a= 11.00/ 12.2 / .2	b= 8 / 11 / .2					
10.80		95.3	2.325	1.368	0.179	1.502
10.80		97.0	2.325	1.363	0.179	1.507
10.80		98.7	2.325	1.358	0.179	1.512
10.80		100.4	2.325	1.353	0.179	1.517
11.00		104.1	2.283	1.341	0.179	1.502
11.00		105.8	2.283	1.336	0.179	1.506
11.00		107.6	2.283	1.332	0.179	1.510

edifici: biomaragall
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= .6223
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 5 .46 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0

ckn= .1 .6 .1 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .8 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
12.20	11.00	107.6	5.651	1.184	0.179	4.146

edifici: biomaragall
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= .6223
c= 0 d= 0 f= 0
kn= 4.4 .4 4.4 5 .46 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 0 0 0
alfa= 1.2 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
12.20	11.00	107.6	0.560	1.206	0.179	0.404

edifici: biomaragall
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= .6223
c= 0 d= 0 f= 0
kn= 4.4 .4 4.4 5 .46 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
12.20	11.00	107.6	1.514	1.171	0.179	1.120

edifici: biomaragall
variant 4 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= .6223
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 5 .46 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0

ckn= .1 .6 .1 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
12.20	11.00	107.6	4.354	1.207	0.179	3.141

Variació a/b per S constant
a= 11 / 12.2 / .2

11.00	12.20	107.6	2.058	1.318	0.179	1.374
11.20	11.98	107.6	2.096	1.320	0.179	1.397
11.40	11.77	107.6	2.133	1.322	0.179	1.420
11.60	11.57	107.6	2.171	1.324	0.179	1.443
11.80	11.37	107.6	2.208	1.327	0.179	1.466
12.00	11.18	107.6	2.245	1.329	0.179	1.488
12.20	11.00	107.6	2.283	1.332	0.179	1.510

edifici: maragall
variant 4 orientació principal=sureste y suroeste+ HIVERN
Rv= 2800 D= 0 rh= .6223
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 5 2.1 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0

ckn= .1 .6 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
12.20	11.00	107.6	4.354	1.309	0.179	2.926
Variació a amb b constant						
a= 11.00/ 12.2 / .2						
11.00	11.00	97.0	4.354	1.337	0.179	2.871
11.20	11.00	98.8	4.354	1.332	0.179	2.881
11.40	11.00	100.5	4.354	1.327	0.179	2.890
11.60	11.00	102.3	4.354	1.322	0.179	2.900
11.80	11.00	104.1	4.354	1.317	0.179	2.909
12.00	11.00	105.8	4.354	1.313	0.179	2.917
12.20	11.00	107.6	4.354	1.309	0.179	2.926
Variació a/b per RT constant						
ratio inicial= 2.926 desviació= .01						
a= 11.00/ 12.2 / .2	b= 8 / 11 / .2					
10.80		97.0	4.435	1.339	0.179	2.920
10.80		98.7	4.435	1.334	0.179	2.930
11.00		105.8	4.354	1.313	0.179	2.917
11.00		107.6	4.354	1.309	0.179	2.926
Variació a/b per S constant						
a= 11 / 12.2 / .2						
11.00	12.20	107.6	3.926	1.298	0.179	2.658
11.20	11.98	107.6	3.997	1.299	0.179	2.703
11.40	11.77	107.6	4.068	1.301	0.179	2.749
11.60	11.57	107.6	4.140	1.302	0.179	2.794
11.80	11.37	107.6	4.211	1.304	0.179	2.838
12.00	11.18	107.6	4.283	1.306	0.179	2.882
12.20	11.00	107.6	4.354	1.309	0.179	2.926

```
44 REM *************** ESQUELET DE L'EDIFICI:  maragall E   ******************
45 REM
50 DO=CR1*.872*A*.7             'façana 1 - Capt.transp. CRi*s*t
52 DA=CR2*0                      'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3* 0                     'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                      'façana 4 - Capt.transp. CRi*s*t
58 DE=.05* .3795*A*.7            'patis    - Capt.transp. CRi*s*t
60 DP=CR1*1.8278*A*CK2*.6        'façana 1 - Capt.opacs  CRi*s*abs*ckn
62 DD=CR2*0                      'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*0                      'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*0                      'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*0                      'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=.52*0                      'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ= .80178*A*B        'superfície en planta   funció a i b
74 DU=A1*(.872*A*K1+1.8278*A*K2)             'façana 1 - Transmissió  ai*s*kn
76 DK=A2*0                       'façana 2 - Transmissió  ai*s*kn
78 DL=A3*0                       'façana 3 - Transmissió  ai*s*kn
80 DM=A4*0                       'façana 4 - Transmissió  ai*s*kn
82 DH=.8*(.16*A*K3+.2188*A*K4+2.055*A*K5)                    'patis    - Transmi
sió  ai*s*kn
84 DV=0                          'terra    - Transmissió  s*kn
86 DW= .044*A*K6+7.32*B*K6+1.47*K7+1.95993*A*B*K8                'locals   - Tra
smissió  s*kn
88 DX=  0                        'coberta  - Transmissió  s*kn
89 RETURN
90 B=134.2/A       'valor b per S constant   (funció de a)
```

Variació a/b per S constant
a= 11 / 12.2 / .2

11.00	12.20	107.6	5.004	1.161	2.244	1.469
11.20	11.98	107.6	5.095	1.164	2.244	1.495
11.40	11.77	107.6	5.186	1.167	2.244	1.520
11.60	11.57	107.6	5.277	1.170	2.244	1.546
11.80	11.37	107.6	5.368	1.173	2.244	1.571
12.00	11.18	107.6	5.459	1.176	2.244	1.596
12.20	11.00	107.6	5.550	1.179	2.244	1.621

edifici: maragall
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 10.764
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 5 2.1 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0

ckn= .1 .6 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 0 0
alfa= .95 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
12.20	11.00	107.6	5.149	1.168	3.100	1.206
Variació a amb b constant						
a= 11.00/ 12.2 / .2						
11.00	11.00	97.0	5.149	1.191	3.100	1.199
11.20	11.00	98.8	5.149	1.187	3.100	1.201
11.40	11.00	100.5	5.149	1.183	3.100	1.202
11.60	11.00	102.3	5.149	1.179	3.100	1.203
11.80	11.00	104.1	5.149	1.175	3.100	1.204
12.00	11.00	105.8	5.149	1.171	3.100	1.205
12.20	11.00	107.6	5.149	1.168	3.100	1.206
Variació a/b per RT constant						
ratio inicial= 1.206	desviació= .01					
a= 11.00/ 12.2 / .2	b= 8 / 11 / .2					
11.00		97.0	5.149	1.191	3.100	1.199
11.00		98.8	5.149	1.187	3.100	1.201
11.00		100.5	5.149	1.183	3.100	1.202
11.00		102.3	5.149	1.179	3.100	1.203
11.00		104.1	5.149	1.175	3.100	1.204
11.00		105.8	5.149	1.171	3.100	1.205
11.00		107.6	5.149	1.168	3.100	1.206
Variació a/b per S constant						
a= 11 / 12.2 / .2						
11.00	12.20	107.6	4.642	1.151	3.100	1.092
11.20	11.98	107.6	4.727	1.153	3.100	1.111
11.40	11.77	107.6	4.811	1.156	3.100	1.130
11.60	11.57	107.6	4.895	1.159	3.100	1.149
11.80	11.37	107.6	4.980	1.162	3.100	1.168
12.00	11.18	107.6	5.064	1.165	3.100	1.187
12.20	11.00	107.6	5.149	1.168	3.100	1.206

edifici: biomaragall
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 13.078
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 5 .46 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 (

ckn= .1 .6 .1 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .9 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	12.20	11.00	107.6	4.138	1.054	3.766	0.858

edifici: biomaragall
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 2.349
c= 0 d= 0 f= 0
kn= 4.4 .4 4.4 5 .46 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 0 0 0
alfa= .9 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	12.20	11.00	107.6	2.068	1.001	0.677	1.232

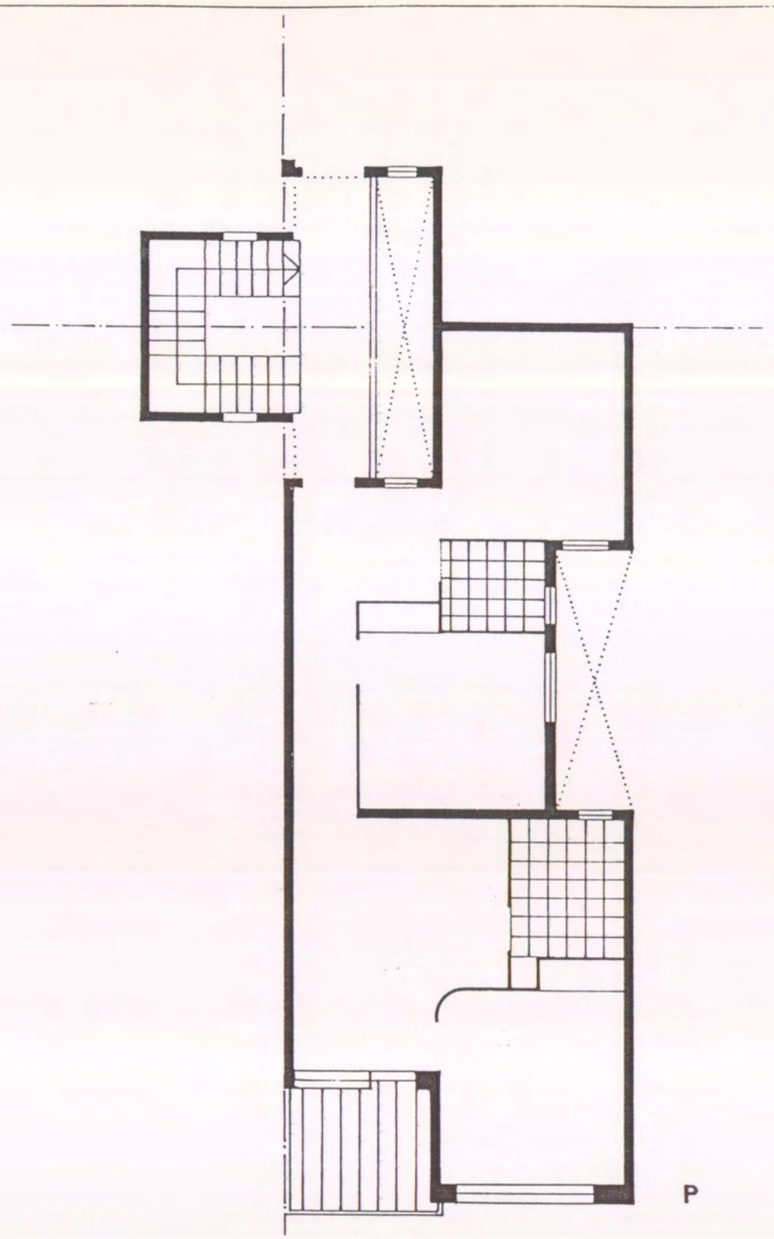
edifici: biomaragall
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 7.79
c= 0 d= 0 f= 0
kn= 4.4 .4 4.4 5 .46 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 0 0
alfa= 1 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	12.20	11.00	107.6	3.646	1.019	2.244	1.117

edifici: biomaragall
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 10.764
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 5 .46 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 (

ckn= .1 .6 .1 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 0 0
alfa= .95 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	12.20	11.00	107.6	5.149	1.066	3.100	1.235



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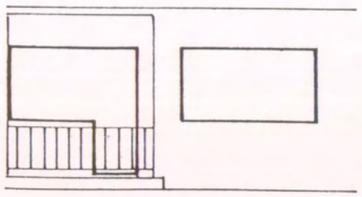


A

2.I.D.4

VIV C/ROSELLON (B)

J.LL. SERT

DATOS GEOMETRICOS

a = 5,20 m	(5,20/6,20 m)
b = 13,80 m	(13,80/14,80 m)
S = 57,06 m²	V = 171,18 m3
Si/S = 0,15	Sit/Sio = 0,88

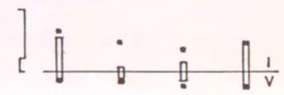
RATIOS TERMICOS (°C)

	sin aislar	aislado
invierno		
S	2,47	2,79
N	0,44	0,38
E	0,92	0,74
W	0,92	0,74
NE	1,92	2,16
SW	1,92	2,16
verano		
S	0,62	0,65
N	0,97	0,73
E	1,30	0,94
W	1,30	0,94
SE	0,98	1,02
SW	0,98	1,02

MASA TERMICA (kcal/°C m3)

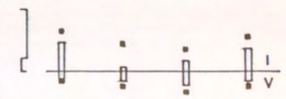
34,47 37,80

RT CON

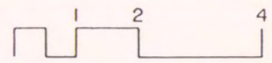


s n e.w se.sw

RT SIN



s n e.w se.sw



BARCELONA 85-88

E.T.S.A.B. U.P.C.

TESIS DOCTORAL · BIOCLIMATISMO Y TIPO ARQUITECTONICO EN CATALUÑA EN EL PERIODO 1930 1985 · VICTOR SEGUI SANTANA

	VIVIENDAS c/ ROSELLON (B) J. LL SERT.	21D4

CAPTORES TRANSPARENTES	1	V. SUR 1	S	0.5A
			t	0.7
			CR	CR1
	2	V. SUR 2	S	0.507 A C
			t	0.7
			CR	CR1
	3	V. PATI	S	0.37. A
			t	0.7
			CR	PATIO
	4	V. PATI	S	0.135 B
			t	0.7
			CR	PATIO
	5		S	
			t	
			CR	
	6		S	
			t	
			CR	
CAPTORES OPACOS	1	P. SUR 2	S	1.22 A
			CK	CK2
			a	0.6
			CR	CR1
	2	P. SUR 2	S	0.73 A C
			CK	CK2
			a	0.6
			CR	CR1
	3		S	
			CK	
			a	
			CR	
	4		S	
			CK	
			a	
			CR	
	5		S	
			CK	
			a	
			CR	
	6		S	
			CK	
			a	
			CR	
	7		S	
			CK	
			a	
			CR	
	8		S	
			CK	
			a	
			CR	
	9		S	
			CK	
			a	
			CR	
CUBIERTA	1		S	
			CK	
			a	

TRANSMISION FACHADAS	1	V. SUR	S	A
			K	K1
			K	X1
	2	P. SUR 1	S	1.95 A
			K	K2
			K	X1
	3	P SUR 2	S	0.345 B
			K	K3
			K	X1
	4	V. PATIO1	S	2.7
			K	K4
			K	PATIO
	5	V. PATIO2	S	1.08
			K	K5
			K	PATIO
	6	P. PATIO	S	9.45
			K	K6
			K	PATIO
	7		S	
			K	
			K	
	8		S	
			K	
			K	
	9		S	
			K	
			K	
	10		S	
			K	
			K	
	11		S	
			K	
			K	
	12		S	
			K	
			K	
	13		S	
			K	
			K	
	14		S	
			K	
			K	
	15		S	
			K	
			K	
	16		S	
			K	
			K	

INFILTRACIONES			S	10.14
			R	0.71
SEPARACION TERRENO	1		S	
			K	
	2		S	
			K	
SEPARACION OTROS LOCALES	1	PUERTA	S	1.68
			K	K7
	2	MEDIAN 1	S	3.16. B
			K	K8
	3	MEDIAN 2	S	1.61 A
			K	K9
	4	MEDIAN 3	S	0.89 B
			K	K9
	5	FORJADOS	S	2(A.B-0.79A - 0.76 B)
			K	K10
TRANSMISION PIEL HORIZONT. CUBIERTA	1		S	
			K	
	2		S	
			K	

SUPERFICIE EN PLANTA	(A.B-0.796A-0.764 B)

VIVIENDAS C/ROSELLON (B) J. LL SERT. 2104

VARIABLES GEOMETRICAS	A	B	Amin.	Amax.	I	Bmin.	Bmax.	I	DESVIACION	B para S Cte.	VOLUMEN	SUPERFICIE
	5.2	13.8		6.2	0.1	13.8	14.8	0.1	0.01	$B=\frac{(57.06+0.796A)}{(A-0.764)}$	171.18	57.06

R=2800	INVIERNO	K_1	K_2	K_3	K_4	K_5	K_6	K_7	K_8	K_9	K_{10}	K_{11}	K_{12}	K_{13}	K_{14}	K_{15}	K_{16}	K_{17}	K_{18}	VERANO	R=2050
		4.4	1.25	2.1	4.4	5	2.1	1.6	1.7	1.21	1.34										

O	RH	COEFICIENTES								COEFICIENTES DE TRANSMISION K																		COEFICIENTES								RH	O
S		CR_1	1	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2	1	CR_1		S
		K_1	0.8	K_2		K_3		K_4																				K_4		K_3		K_2	0.9	K_1		
	0.71	C	0.52	D		F		G		4.4	1.25	2.1	4.4	5	0.46	1.6	1.7	1.21	1.34									G		F		D	0.53	C	11.872	
N		CR_1	0.137	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2	0.756	CR_1		N
		K_1	1.2	K_2		K_3		K_4																				X_4		K_3		K_2	0.8	K_1		
	0.71	C	1	D		F		G		4.4	0.4	0.46	4.4	5	0.46	1.6	1.7	1.21	1.34									G		F		D	0.187	C	2.132	
E		CR_1	0.3977	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2	1.345	CR_1		E
		K_1	1	K_2		K_3		K_4																				K_4		K_3		K_2	1	K_1		
	0.71	C	0.4	D		F		G		4.4	0.4	0.46	4.4	5	0.46	1.6	1.7	1.21	1.34									G		F		D	0.72	C	7.071	
W		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2		CR_1		W
		K_1		K_2		K_3		K_4																				K_4		K_3		K_2		K_1		
		C		D		F		G																				G		F		D		C		
SE		CR_1	0.768	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2	1.2469	CR_1		SE
		K_1	0.9	K_2		K_3		K_4																				K_4		K_3		K_2	0.95	K_1		
	0.71	C	0.56	D		F		G		4.4	1.25	2.1	4.4	5	0.46	1.6	1.7	1.21	1.34									G		F		D	0.72	C	9.771	
SW		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2		CR_1		SW
		K_1		K_2		K_3		K_4																				K_4		K_3		K_2		K_1		
		C		D		F		G																				G		F		D		C		

```
44 REM *************** ESQUELET DE L'EDIFICI:  sertR          ******************
45 REM
50 DO=CR1*(.5*A*.7+.507     *A*C*.7)                                'façana 1 - Capt.trans
. CRi*s*t
52 DA=CR2*O                                'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*O                                'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4* O                               'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*(.37*A*.7+.135*B*.7)                                     'patis    - Capt.transp. CRi
s*t
60 DP=CR1*(1.22*A*CK2*.6+.73*A*C*CK2*.6)                           'façana 1 - Capt.opacs
 CRi*s*abs*ckn
62 DD=CR2* O                               'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*O                                'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*O                                'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*O                                'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=.52*O                                'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=(A*B-.796*A-.764*B)                                    'superfície en planta   funci
 a i b
74 DU=A1*(A*K1+1.95*A*K2+.345*B*K3)                                'façana 1 - Transmissi
  ai*s*kn
76 DK=A2*O                                 'façana 2 - Transmissió  ai*s*kn
78 DL=A3*O                                 'façana 3 - Transmissió  ai*s*kn
80 DM=A4*O                                 'façana 4 - Transmissió  ai*s*kn
82 DH=.8*(2.7*K4+1.08*K5+1.039*B*K6+9.45*K6)                                  'patis    - T
ansmissió  ai*s*kn
84 DV=   O                                 'terra    - Transmissió  s*kn
86 DW=1.68*K7+3.16*B*K8+1.61*A*K9+.89*B*K9+2*(A*B-.796*A-.764*B)*K10
          'locals   - Transmissió  s*kn
88 DX= O                                   'coberta  - Transmissió  s*kn
89 RETURN
90 B=(57.06+.796*A)/(A-.764)                                   'valor b per S constant
 (funció de a)
```

variant 1 orientació principal=sud HIVERN
Rv= 2800 D= 0 rh= .71
c= .52 d= 0 f= 0
kn= 4.4 1.25 2.1 4.4 5 2.1 1.6 1.7 1.21 1.34 0 0 0 0 0 0 0 0
0 0
kn= .1 .6 .1 .1 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .8 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.20	13.80	57.1	4.024	1.420	0.204	2.477
Variació a amb b constant						
a= 5.20/ 6.2 / .1						
5.20	13.80	57.1	4.024	1.420	0.204	2.477
5.30	13.80	58.4	4.010	1.404	0.204	2.493
5.40	13.80	59.7	3.995	1.389	0.204	2.507
5.50	13.80	61.0	3.982	1.374	0.204	2.522
5.60	13.80	62.3	3.969	1.360	0.204	2.536
5.70	13.80	63.6	3.956	1.347	0.204	2.550
5.80	13.80	64.9	3.944	1.334	0.204	2.564
5.90	13.80	66.2	3.933	1.322	0.204	2.577
6.00	13.80	67.5	3.922	1.310	0.204	2.590
6.10	13.80	68.8	3.911	1.298	0.204	2.602
6.20	13.80	70.1	3.901	1.287	0.204	2.614
Variació a/b per RT constant						
ratio inicial= 2.477 desviació= .01						
a= 5.20/ 6.2 / .1	b= 13.8 / 14.8 / .1					
	13.80	57.1	4.024	1.420	0.204	2.477
	13.90	58.8	3.979	1.401	0.204	2.478
	14.00	60.6	3.935	1.382	0.204	2.479
	14.10	62.4	3.892	1.365	0.204	2.480
	14.20	64.2	3.850	1.348	0.204	2.479
	14.30	66.0	3.810	1.332	0.204	2.479
	14.40	67.9	3.771	1.317	0.204	2.478
	14.50	69.8	3.732	1.302	0.204	2.477
	14.60	71.7	3.695	1.288	0.204	2.476
	14.70	73.6	3.658	1.274	0.204	2.474
	14.70	75.0	3.649	1.263	0.204	2.486
	14.80	75.5	3.623	1.261	0.204	2.472
Variació a/b per S constant						
= 5.2 / 6.2 / .1						
5.20	13.80	57.1	4.026	1.420	0.204	2.478
5.30	13.51	57.1	4.101	1.413	0.204	2.535
5.40	13.24	57.1	4.177	1.407	0.204	2.591
5.50	12.97	57.1	4.253	1.402	0.204	2.647
5.60	12.72	57.1	4.328	1.396	0.204	2.703
5.70	12.48	57.1	4.404	1.392	0.204	2.759
5.80	12.25	57.1	4.480	1.387	0.204	2.814
5.90	12.02	57.1	4.556	1.383	0.204	2.870
6.00	11.81	57.1	4.632	1.379	0.204	2.925
6.10	11.60	57.1	4.708	1.375	0.204	2.979
6.20	11.40	57.1	4.784	1.372	0.204	3.034

edifici: sertr
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= .71
c= 1 d= 0 f= 0
kn= 4.4 1.25 2.1 4.4 5 2.1 1.6 1.7 1.21 1.34 0 0 0 0 0 0 0 0
0 0
cкn= .1 .6 .1 .1 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 0 0 0
alfa= 1.2 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.20	13.80	57.1	0.773	1.526	0.204	0.446
Variació a amb b constant						
a= 5.20/ 6.2 / .1						
5.20	13.80	57.1	0.773	1.526	0.204	0.446
5.30	13.80	58.4	0.770	1.509	0.204	0.449
5.40	13.80	59.7	0.766	1.493	0.204	0.451
5.50	13.80	61.0	0.763	1.478	0.204	0.453
5.60	13.80	62.3	0.760	1.463	0.204	0.455
5.70	13.80	63.6	0.757	1.449	0.204	0.457
5.80	13.80	64.9	0.754	1.436	0.204	0.459
5.90	13.80	66.2	0.751	1.423	0.204	0.461
6.00	13.80	67.5	0.749	1.411	0.204	0.463
6.10	13.80	68.8	0.746	1.399	0.204	0.465
6.20	13.80	70.1	0.744	1.387	0.204	0.467
Variació a/b per RT constant						
ratio inicial= .446 desviació= .01						
a= 5.20/ 6.2 / .1	b= 13.8 / 14.8 / .1					
	13.80	57.1	0.773	1.526	0.204	0.446
	13.90	57.5	0.768	1.522	0.204	0.444
	14.00	58.0	0.762	1.518	0.204	0.442
	14.10	58.4	0.757	1.515	0.204	0.440
	14.20	58.9	0.751	1.511	0.204	0.437
	13.80	58.4	0.770	1.509	0.204	0.449
	13.90	58.8	0.764	1.506	0.204	0.446
	14.00	59.3	0.759	1.502	0.204	0.444
	14.10	59.7	0.753	1.498	0.204	0.442
	14.20	60.2	0.748	1.494	0.204	0.440
	14.30	60.6	0.742	1.491	0.204	0.437
	13.80	59.7	0.766	1.493	0.204	0.451
	13.90	60.1	0.761	1.490	0.204	0.449
	14.00	60.6	0.755	1.486	0.204	0.446
	14.10	61.1	0.750	1.482	0.204	0.444
	14.20	61.5	0.744	1.479	0.204	0.442
	14.30	62.0	0.739	1.475	0.204	0.440
	14.40	62.5	0.734	1.472	0.204	0.437
	13.80	61.0	0.763	1.478	0.204	0.453
	13.90	61.5	0.757	1.474	0.204	0.451
	14.00	61.9	0.752	1.471	0.204	0.448
	14.10	62.4	0.747	1.467	0.204	0.446
	14.20	62.9	0.741	1.464	0.204	0.444
	14.30	63.3	0.736	1.460	0.204	0.442
	14.40	63.8	0.731	1.457	0.204	0.439
	14.50	64.3	0.726	1.453	0.204	0.437
	13.80	62.3	0.760	1.463	0.204	0.455
	13.90	62.8	0.754	1.460	0.204	0.453
	14.00	63.2	0.749	1.456	0.204	0.451
	14.10	63.7	0.744	1.453	0.204	0.448
	14.20	64.2	0.738	1.449	0.204	0.446
	14.30	64.7	0.733	1.446	0.204	0.444
	14.40	65.2	0.728	1.442	0.204	0.442
	14.50	65.7	0.723	1.439	0.204	0.439
	14.60	66.1	0.718	1.435	0.204	0.437
	13.90	64.1	0.751	1.446	0.204	0.455
	14.00	64.6	0.746	1.442	0.204	0.453
	14.10	65.1	0.741	1.439	0.204	0.450
	14.20	65.6	0.735	1.435	0.204	0.448
	14.30	66.0	0.730	1.432	0.204	0.446
	14.40	66.5	0.725	1.428	0.204	0.444
	14.50	67.0	0.720	1.425	0.204	0.441
	14.60	67.5	0.715	1.422	0.204	0.439

14.70	68.0	0.710	1.418	0.204	0.437
14.00	65.9	0.743	1.429	0.204	0.455
14.10	66.4	0.738	1.425	0.204	0.452
14.20	66.9	0.733	1.422	0.204	0.450
14.30	67.4	0.727	1.418	0.204	0.448
14.40	67.9	0.722	1.415	0.204	0.445
14.50	68.4	0.717	1.412	0.204	0.443
14.60	68.9	0.712	1.408	0.204	0.441
14.70	69.4	0.707	1.405	0.204	0.439
14.80	69.9	0.702	1.402	0.204	0.437
14.10	67.7	0.735	1.412	0.204	0.454
14.20	68.2	0.730	1.409	0.204	0.452
14.30	68.7	0.725	1.406	0.204	0.450
14.40	69.3	0.720	1.402	0.204	0.447
14.50	69.8	0.715	1.399	0.204	0.445
14.60	70.3	0.710	1.396	0.204	0.443
14.70	70.8	0.705	1.393	0.204	0.441
14.80	71.3	0.700	1.389	0.204	0.439
14.20	69.6	0.727	1.397	0.204	0.454
14.30	70.1	0.722	1.393	0.204	0.451
14.40	70.6	0.717	1.390	0.204	0.449
14.50	71.1	0.712	1.387	0.204	0.447
14.60	71.7	0.707	1.384	0.204	0.445
14.70	72.2	0.702	1.380	0.204	0.443
14.80	72.7	0.697	1.377	0.204	0.440
14.30	71.4	0.720	1.381	0.204	0.453
14.40	72.0	0.715	1.378	0.204	0.451
14.50	72.5	0.710	1.375	0.204	0.449
14.60	73.1	0.705	1.372	0.204	0.447
14.70	73.6	0.700	1.369	0.204	0.444
14.80	74.1	0.695	1.366	0.204	0.442
14.30	72.8	0.717	1.370	0.204	0.455
14.40	73.3	0.712	1.367	0.204	0.453
14.50	73.9	0.707	1.364	0.204	0.451
14.60	74.4	0.702	1.360	0.204	0.448
14.70	75.0	0.698	1.357	0.204	0.446
14.80	75.5	0.693	1.354	0.204	0.444

Variació a/b per S constant
a= 5.2 / 6.2 / .1

5.20	13.80	57.1	0.773	1.526	0.204	0.446
5.30	13.51	57.1	0.787	1.521	0.204	0.455
5.40	13.24	57.1	0.800	1.516	0.204	0.464
5.50	12.97	57.1	0.813	1.512	0.204	0.473
5.60	12.72	57.1	0.826	1.507	0.204	0.482
5.70	12.48	57.1	0.839	1.504	0.204	0.491
5.80	12.25	57.1	0.853	1.500	0.204	0.500
5.90	12.02	57.1	0.866	1.497	0.204	0.508
6.00	11.81	57.1	0.879	1.495	0.204	0.517
6.10	11.60	57.1	0.893	1.492	0.204	0.525
6.20	11.40	57.1	0.906	1.490	0.204	0.534

edifici: sertr
ariant 3 orientació principal=este yoeste HIVERN
Rv= 2800 D= 0 rh= .71
c= .4 d= 0 f= 0
kn= 4.4 1.25 2.1 4.4 5 2.1 1.6 1.7 1.21 1.34 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .1 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
n= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.

Edifici original

5.20	13.80	57.1	1.550	1.473	0.204	0.924

Variació a amb b constant
a= 5.20/ 6.2 / .1

5.20	13.80	57.1	1.550	1.473	0.204	0.924
5.30	13.80	58.4	1.544	1.457	0.204	0.929
5.40	13.80	59.7	1.538	1.441	0.204	0.934
5.50	13.80	61.0	1.533	1.426	0.204	0.939
5.60	13.80	62.3	1.527	1.412	0.204	0.944
5.70	13.80	63.6	1.522	1.398	0.204	0.949
5.80	13.80	64.9	1.517	1.385	0.204	0.954
5.90	13.80	66.2	1.512	1.372	0.204	0.958
6.00	13.80	67.5	1.507	1.360	0.204	0.963
6.10	13.80	68.8	1.503	1.348	0.204	0.967
6.20	13.80	70.1	1.499	1.337	0.204	0.972

Variació a/b per RT constant
ratio inicial= .924 desviació= .01
a= 5.20/ 6.2 / .1 b= 13.8 / 14.8 / .1

13.80	57.1	1.550	1.473	0.204	0.924
13.90	57.5	1.539	1.469	0.204	0.919
13.80	58.4	1.544	1.457	0.204	0.929
13.90	58.8	1.533	1.453	0.204	0.924
14.00	59.3	1.521	1.450	0.204	0.919
13.90	60.1	1.527	1.438	0.204	0.929
14.00	60.6	1.515	1.434	0.204	0.924
14.10	61.1	1.504	1.431	0.204	0.919
14.00	61.9	1.510	1.419	0.204	0.929
14.10	62.4	1.499	1.416	0.204	0.924
14.20	62.9	1.488	1.413	0.204	0.919
14.10	63.7	1.493	1.402	0.204	0.929
14.20	64.2	1.482	1.399	0.204	0.924
14.30	64.7	1.471	1.395	0.204	0.919
14.20	65.6	1.477	1.385	0.204	0.929
14.30	66.0	1.466	1.382	0.204	0.924
14.40	66.5	1.456	1.379	0.204	0.919
14.20	66.9	1.472	1.372	0.204	0.933
14.30	67.4	1.462	1.369	0.204	0.928
14.40	67.9	1.451	1.366	0.204	0.924
14.50	68.4	1.441	1.363	0.204	0.919
14.30	68.7	1.457	1.356	0.204	0.933
14.40	69.3	1.446	1.353	0.204	0.928
14.50	69.8	1.436	1.350	0.204	0.923
14.60	70.3	1.426	1.347	0.204	0.918
14.40	70.6	1.442	1.341	0.204	0.932
14.50	71.1	1.432	1.338	0.204	0.927
14.60	71.7	1.421	1.336	0.204	0.922
14.70	72.2	1.411	1.333	0.204	0.918
14.50	72.5	1.427	1.327	0.204	0.931
14.60	73.1	1.417	1.324	0.204	0.927
14.70	73.6	1.407	1.321	0.204	0.922
14.80	74.1	1.397	1.318	0.204	0.917
14.60	74.4	1.413	1.313	0.204	0.931
14.70	75.0	1.403	1.310	0.204	0.926
14.80	75.5	1.393	1.307	0.204	0.921

Variació a/b per S constant
a= 5.2 / 6.2 / .1

5.20	13.80	57.1	1.551	1.473	0.204	0.924
5.30	13.51	57.1	1.579	1.467	0.204	0.944
5.40	13.24	57.1	1.607	1.462	0.204	0.964
5.50	12.97	57.1	1.635	1.457	0.204	0.984
5.60	12.72	57.1	1.663	1.452	0.204	1.004
5.70	12.48	57.1	1.692	1.448	0.204	1.023
5.80	12.25	57.1	1.720	1.444	0.204	1.043
5.90	12.02	57.1	1.748	1.440	0.204	1.062
6.00	11.81	57.1	1.776	1.437	0.204	1.082
6.10	11.60	57.1	1.805	1.434	0.204	1.101
6.20	11.40	57.1	1.833	1.431	0.204	1.120

edifici: sertr
variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= .71
c= .56 d= 0 f= 0
n= 4.4 1.25 2.1 4.4 5 2.1 1.6 1.7 1.21 1.34 0 0 0 0 0 0 0 0
0 0
ckn= .1 .6 .1 .1 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.20	13.80	57.1	3.179	1.446	0.204	1.925
Variació a amb b constant						
a= 5.20/ 6.2 / .1						
5.20	13.80	57.1	3.179	1.446	0.204	1.925
5.30	13.80	58.4	3.167	1.430	0.204	1.937
5.40	13.80	59.7	3.156	1.415	0.204	1.948
5.50	13.80	61.0	3.145	1.400	0.204	1.959
5.60	13.80	62.3	3.134	1.386	0.204	1.970
5.70	13.80	63.6	3.124	1.372	0.204	1.981
5.80	13.80	64.9	3.115	1.359	0.204	1.991
5.90	13.80	66.2	3.106	1.347	0.204	2.001
6.00	13.80	67.5	3.097	1.335	0.204	2.011
6.10	13.80	68.8	3.088	1.323	0.204	2.021
6.20	13.80	70.1	3.080	1.312	0.204	2.030
Variació a/b per RT constant						
ratio inicial= 1.925 desviació= .01						
a= 5.20/ 6.2 / .1	b= 13.8 / 14.8 / .1					
	13.80	57.1	3.179	1.446	0.204	1.925
	13.90	58.8	3.143	1.427	0.204	1.926
	14.00	60.6	3.108	1.408	0.204	1.927
	14.10	61.1	3.085	1.405	0.204	1.916
	14.10	62.4	3.074	1.390	0.204	1.927
	14.20	62.9	3.051	1.387	0.204	1.916
	14.20	64.2	3.041	1.373	0.204	1.927
	14.30	64.7	3.019	1.370	0.204	1.916
	14.30	66.0	3.009	1.357	0.204	1.927
	14.40	66.5	2.987	1.354	0.204	1.916
	14.40	67.9	2.978	1.341	0.204	1.926
	14.50	68.4	2.956	1.338	0.204	1.916
	14.50	69.8	2.947	1.326	0.204	1.925
	14.60	71.7	2.918	1.312	0.204	1.924
	14.60	73.1	2.910	1.300	0.204	1.933
	14.70	73.6	2.889	1.298	0.204	1.923
	14.70	75.0	2.881	1.287	0.204	1.932
	14.80	75.5	2.861	1.284	0.204	1.921
Variació a/b per S constant						
a= 5.2 / 6.2 / .1						
5.20	13.80	57.1	3.180	1.446	0.204	1.926
5.30	13.51	57.1	3.239	1.440	0.204	1.969
5.40	13.24	57.1	3.299	1.434	0.204	2.012
5.50	12.97	57.1	3.358	1.429	0.204	2.055
5.60	12.72	57.1	3.418	1.424	0.204	2.098
5.70	12.48	57.1	3.477	1.420	0.204	2.140
5.80	12.25	57.1	3.537	1.415	0.204	2.183
5.90	12.02	57.1	3.596	1.412	0.204	2.225
6.00	11.81	57.1	3.656	1.408	0.204	2.267
6.10	11.60	57.1	3.715	1.405	0.204	2.308
6.20	11.40	57.1	3.775	1.402	0.204	2.350

```
edifici: sertr BIO
variant  1    orientació principal=sur      HIVERN
Rv= 2800  D= 0  rh= .71
c=  .52    d=  0    f=  0
kn=  4.4  1.25  2.1  4.4  5  .46  1.6  1.7  1.21  1.34  0  0  0  0  0  0  0  0
 0  0
ckn=  .1  .6  .1  .1  .1  .2  .6  .6  .6  .6  0  0  0  0  0  0  0  0  0  0
en=  0  0  0  0  0  0  0  0  0  0
Cr=  1  0  0  0
alfa=  .8  0  0  0

          a        b           S         I         Gt        Gv        R.T.
-------------------------------------------------------------------------------

Edifici original
        5.20     13.80      57.1      4.024     1.237     0.204     2.791

edifici: sertr
variant  2    orientació principal=norte      HIVERN
Rv= 2800  D= 0  rh= .71
c=  1    d=  0    f=  0
kn=  4.4  .4  .46  4.4  5  .46  1.6  1.7  1.21  1.34  0  0  0  0  0  0  0  0  0
 0
ckn=  .1  .2  .2  .1  .1  .2  .6  .6  .6  .6  0  0  0  0  0  0  0  0  0  0
en=  0  0  0  0  0  0  0  0  0  0
Cr=  .137  0  0  0
alfa=  1.2  0  0  0

          a        b           S         I         Gt        Gv        R.T.
-------------------------------------------------------------------------------

Edifici original
        5.20     13.80      57.1      0.546     1.229     0.204     0.380

edifici: sertr
variant  3    orientació principal=este y oeste      HIVERN
Rv= 2800  D= 0  rh= .71
c=  .4    d=  0    f=  0
kn=  4.4  .4  .46  4.4  5  .46  1.6  1.7  1.21  1.34  0  0  0  0  0  0  0  0  0
 0
ckn=  .1  .2  .2  .1  .1  .2  .6  .6  .6  .6  0  0  0  0  0  0  0  0  0  0
en=  0  0  0  0  0  0  0  0  0  0
Cr=  .3977  0  0  0
alfa=  1  0  0  0

          a        b           S         I         Gt        Gv        R.T.
-------------------------------------------------------------------------------

Edifici original
        5.20     13.80      57.1      1.039     1.175     0.204     0.742

edifici: sertr
variant  5    orientació principal=sureste y suroeste      HIVERN
Rv= 2800  D= 0  rh= .71
c=  .56    d=  0    f=  0
kn=  4.4  1.25  2.1  4.4  5  .46  1.6  1.7  1.21  1.34  0  0  0  0  0  0  0  0
 0  0
kn=  .1  .6  .1  .1  .1  .2  .6  .6  .6  .6  0  0  0  0  0  0  0  0  0  0
en=  0  0  0  0  0  0  0  0  0  0
Cr=  .768  0  0  0
alfa=  .9  0  0  0

          a        b           S         I         Gt        Gv        R.T.
-------------------------------------------------------------------------------

Edifici original
        5.20     13.80      57.1      3.179     1.264     0.204     2.164
```

```
44 REM *************** ESQUELET DE L'EDIFICI:  sertR ***********************
45 REM
50 DO=CR1*(.5*A*.7+.5070001*A*C*.7)                          'façana 1 - Capt.trans
. CRi*s*t
52 DA=CR2*O                          'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*O                          'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4* O                         'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*(.37*A*.7+.135*B*.7)                        'patis    - Capt.transp. CRi
s*t
60 DP=CR1*(1.22*A*CK2*.6-.73*A*C*CK2*.6)                     'façana 1 - Capt.opacs
 CRi*s*abs*ckn
62 DD=CR2* O                         'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*O                          'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*O                          'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*O                          'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=2.4*O                          'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=(A*B-.796*A-.764*B)                          'superfície en planta   funci
 a i b
74 DU=A1*(A*K1+1.95*A*K2+.345*B*K3)                          'façana 1 - Transmissi
  ai*s*kn
76 DK=A2*O                           'façana 2 - Transmissió  ai*s*kn
78 DL=A3*O                           'façana 3 - Transmissió  ai*s*kn
80 DM=A4*O                           'façana 4 - Transmissió  ai*s*kn
82 DH=.8*(2.7*K4+1.08*K5+1.039*B*K6+9.45*K6)                        'patis    - T
ansmissió  ai*s*kn
84 DV=   O                           'terra    - Transmissió  s*kn
86 DW=1.68*K7+3.16*B*K8+1.61*A*K9+.89*B*K9+2*(A*B-.796*A-.764*B)*K10
          'locals   - Transmissió  s*kn
88 DX= O                             'coberta  - Transmissió  s*kn
89 RETURN
90 B=(57.06+.796*A)/(A-.764)                                 'valor b per S constant
 (funció de a)
```

edifici:5ertr
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 11.872
c= .53 d= 0 f= 0
kn= 4.4 1.25 2.1 4.4 5 2.1 1.6 1.7 1.21 1.34 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .1 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.20	13.80	57.1	2.962	1.298	3.419	0.628
Variació a amb b constant						
a= 5.20/ 6.2 / .1						
5.20	13.80	57.1	2.962	1.298	3.419	0.628
5.30	13.80	58.4	2.952	1.283	3.419	0.627
5.40	13.80	59.7	2.941	1.268	3.419	0.627
5.50	13.80	61.0	2.931	1.255	3.419	0.627
5.60	13.80	62.3	2.922	1.242	3.419	0.626
5.70	13.80	63.6	2.912	1.229	3.419	0.626
5.80	13.80	64.9	2.904	1.217	3.419	0.626
5.90	13.80	66.2	2.895	1.206	3.419	0.626
6.00	13.80	67.5	2.887	1.195	3.419	0.625
6.10	13.80	68.8	2.879	1.184	3.419	0.625
6.20	13.80	70.1	2.872	1.174	3.419	0.625
Variació a/b per RT constant						
ratio inicial= .628 desviació= .01						
a= 5.20/ 6.2 / .1	b= 13.8 / 14.8 / .1					
	13.80	57.1	2.962	1.298	3.419	0.628
	13.90	57.5	2.940	1.294	3.419	0.623
	14.00	58.0	2.918	1.291	3.419	0.619
	13.80	58.4	2.952	1.283	3.419	0.627
	13.90	58.8	2.929	1.279	3.419	0.623
	14.00	59.3	2.907	1.276	3.419	0.619
	13.80	59.7	2.941	1.266	3.419	0.627
	13.90	60.1	2.919	1.265	3.419	0.623
	13.80	61.0	2.931	1.253	3.419	0.627
	13.90	61.5	2.909	1.252	3.419	0.622
	13.80	62.3	2.922	1.242	3.419	0.626
	13.90	62.8	2.899	1.239	3.419	0.622
	13.80	63.6	2.912	1.229	3.419	0.626
	13.90	64.1	2.890	1.226	3.419	0.622
	13.80	64.9	2.904	1.217	3.419	0.626
	13.90	65.4	2.881	1.214	3.419	0.621
	13.80	66.2	2.895	1.206	3.419	0.626
	13.90	66.7	2.873	1.203	3.419	0.621
	13.80	67.5	2.887	1.195	3.419	0.625
	13.90	68.0	2.865	1.192	3.419	0.621
	13.80	68.8	2.879	1.184	3.419	0.625
	13.90	69.3	2.857	1.181	3.419	0.621
	13.80	70.1	2.872	1.174	3.419	0.625
	13.90	70.6	2.850	1.171	3.419	0.620

Variació a/b per S constant
a= 5.2 / 6.2 / .1

5.20	13.80	57.1	2.963	1.298	3.419	0.628
5.30	13.51	57.1	3.019	1.292	3.419	0.640
5.40	13.24	57.1	3.075	1.288	3.419	0.653
5.50	12.97	57.1	3.131	1.283	3.419	0.665
5.60	12.72	57.1	3.186	1.279	3.419	0.678
5.70	12.48	57.1	3.242	1.275	3.419	0.690
5.80	12.25	57.1	3.298	1.272	3.419	0.703
5.90	12.02	57.1	3.354	1.269	3.419	0.715
6.00	11.81	57.1	3.410	1.266	3.419	0.727
6.10	11.60	57.1	3.465	1.263	3.419	0.740
6.20	11.40	57.1	3.521	1.261	3.419	0.752

edifici: sertr
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 2.132
c= .187 d= 0 f= 0
kn= 4.4 1.25 2.1 4.4 5 2.1 1.6 1.7 1.21 1.34 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .1 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 0 0 0
alfa= .8 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.20	13.80	57.1	1.840	1.271	0.614	0.976
Variació a amb b constant						
a= 5.20/ 6.2 / .1						
5.20	13.80	57.1	1.840	1.271	0.614	0.976
5.30	13.80	58.4	1.833	1.266	0.614	0.980
5.40	13.80	59.7	1.827	1.262	0.614	0.984
5.50	13.80	61.0	1.820	1.257	0.614	0.987
5.60	13.80	62.3	1.814	1.253	0.614	0.991
5.70	13.80	63.6	1.808	1.249	0.614	0.994
5.80	13.80	64.9	1.802	1.245	0.614	0.998
5.90	13.80	66.2	1.797	1.240	0.614	1.001
6.00	13.80	67.5	1.792	1.237	0.614	1.004
6.10	13.80	68.8	1.787	1.233	0.614	1.007
6.20	13.80	70.1	1.782	1.229	0.614	1.010
Variació a/b per RT constant						
ratio inicial= .976 desviació= .01						
a= 5.20/ 6.2 / .1	b= 13.8 / 14.8 / .1					
	13.80	57.1	1.840	1.271	0.614	0.976
	13.90	57.5	1.826	1.260	0.614	0.970
	13.80	58.4	1.833	1.266	0.614	0.980
	13.90	58.8	1.819	1.255	0.614	0.974
	14.00	59.3	1.806	1.245	0.614	0.968
	13.80	59.7	1.827	1.262	0.614	0.984
	13.90	60.1	1.813	1.251	0.614	0.978
	14.00	60.6	1.799	1.241	0.614	0.972
	13.90	61.5	1.806	1.246	0.614	0.981
	14.00	61.9	1.793	1.237	0.614	0.976
	14.10	62.4	1.779	1.227	0.614	0.970
	13.90	62.8	1.800	1.242	0.614	0.985
	14.00	63.2	1.787	1.233	0.614	0.979
	14.10	63.7	1.773	1.223	0.614	0.973
	14.20	64.2	1.760	1.214	0.614	0.968
	14.00	64.6	1.781	1.229	0.614	0.983
	14.10	65.1	1.768	1.220	0.614	0.977
	14.20	65.6	1.754	1.210	0.614	0.971
	14.10	66.4	1.762	1.216	0.614	0.980
	14.20	66.9	1.749	1.207	0.614	0.974
	14.30	67.4	1.736	1.198	0.614	0.969

	14.20	68.2	1.744	1.169	0.614	0.977
	14.30	68.7	1.731	1.166	0.614	0.972
	14.20	69.6	1.739	1.158	0.614	0.981
	14.30	70.1	1.726	1.156	0.614	0.975
	14.40	70.6	1.713	1.153	0.614	0.969
	14.20	70.9	1.734	1.148	0.614	0.984
	14.30	71.4	1.721	1.145	0.614	0.978
	14.40	72.0	1.708	1.143	0.614	0.972
	14.30	72.8	1.716	1.135	0.614	0.981
	14.40	73.3	1.704	1.133	0.614	0.975
	14.50	73.9	1.691	1.130	0.614	0.969

Variació a/b per S constant
a= 5.2 / 6.2 / .1

5.20	13.80	57.1	1.841	1.271	0.614	0.976
5.30	13.51	57.1	1.875	1.266	0.614	0.997
5.40	13.24	57.1	1.909	1.260	0.614	1.018
5.50	12.97	57.1	1.943	1.256	0.614	1.039
5.60	12.72	57.1	1.977	1.251	0.614	1.060
5.70	12.48	57.1	2.012	1.247	0.614	1.080
5.80	12.25	57.1	2.046	1.243	0.614	1.101
5.90	12.02	57.1	2.080	1.240	0.614	1.121
6.00	11.81	57.1	2.114	1.237	0.614	1.142
6.10	11.60	57.1	2.149	1.234	0.614	1.162
6.20	11.40	57.1	2.183	1.231	0.614	1.183

edifici: sertr
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 7.071
c= .72 d= 0 f= 0
kn= 4.4 1.25 2.1 4.4 5 2.1 1.6 1.7 1.21 1.34 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .1 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.20	13.80	57.1	4.371	1.324	2.036	1.300
Variació a amb b constant						
a= 5.20/ 6.2 / .1						
5.20	13.80	57.1	4.371	1.324	2.036	1.300
5.30	13.80	58.4	4.355	1.309	2.036	1.301
5.40	13.80	59.7	4.340	1.295	2.036	1.302
5.50	13.80	61.0	4.326	1.281	2.036	1.304
5.60	13.80	62.3	4.312	1.268	2.036	1.305
5.70	13.80	63.6	4.299	1.255	2.036	1.306
5.80	13.80	64.9	4.286	1.243	2.036	1.307
5.90	13.80	66.2	4.274	1.231	2.036	1.307
6.00	13.80	67.5	4.262	1.220	2.036	1.308
6.10	13.80	68.8	4.251	1.209	2.036	1.309
6.20	13.80	70.1	4.240	1.198	2.036	1.310
Variació a/b per RT constant						
ratio inicial= 1.3 desviació= .01						
a= 5.20/ 6.2 / .1	b= 13.8 / 14.8 / .1					
	13.80	57.1	4.371	1.324	2.036	1.300
	13.90	57.5	4.338	1.321	2.036	1.292
	13.80	58.4	4.355	1.309	2.036	1.301
	13.90	58.8	4.322	1.306	2.036	1.293
	13.80	59.7	4.340	1.295	2.036	1.302
	13.90	60.1	4.307	1.291	2.036	1.294
	13.80	61.0	4.326	1.281	2.036	1.304
	13.90	61.5	4.293	1.277	2.036	1.295
	13.80	62.3	4.312	1.268	2.036	1.305
	13.90	62.8	4.279	1.264	2.036	1.296
	13.80	63.6	4.299	1.255	2.036	1.306
	13.90	64.1	4.266	1.252	2.036	1.297
	13.80	64.9	4.286	1.243	2.036	1.307
	13.90	65.4	4.253	1.239	2.036	1.298
	13.80	66.2	4.274	1.231	2.036	1.307
	13.90	66.7	4.241	1.228	2.036	1.299
	13.80	67.5	4.262	1.220	2.036	1.308
	13.90	68.0	4.229	1.217	2.036	1.300
	14.00	68.5	4.197	1.213	2.036	1.291
	13.80	68.8	4.251	1.209	2.036	1.309
	13.90	69.3	4.218	1.206	2.036	1.300
	14.00	69.8	4.186	1.203	2.036	1.292
	13.90	70.6	4.207	1.195	2.036	1.301
	14.00	71.2	4.175	1.192	2.036	1.293

Variació a/b per S constant
a= 5.2 / 6.2 / .1

5.20	13.80	57.1	4.372	1.324	2.036	1.301
5.30	13.51	57.1	4.455	1.319	2.036	1.327
5.40	13.24	57.1	4.538	1.315	2.036	1.354
5.50	12.97	57.1	4.621	1.311	2.036	1.380
5.60	12.72	57.1	4.704	1.307	2.036	1.406
5.70	12.48	57.1	4.787	1.303	2.036	1.433
5.80	12.25	57.1	4.870	1.300	2.036	1.459
5.90	12.02	57.1	4.953	1.297	2.036	1.485
6.00	11.81	57.1	5.035	1.295	2.036	1.511
6.10	11.60	57.1	5.118	1.292	2.036	1.537
6.20	11.40	57.1	5.201	1.290	2.036	1.563

edifici: sertr
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 9.771
c= .72 d= 0 f= 0
kn= 4.4 1.25 2.1 4.4 5 2.1 1.6 1.7 1.21 1.34 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .1 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 0 0
alfa= .95 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.20	13.80	57.1	4.057	1.311	2.814	0.983
Variació a amb b constant						
a= 5.20/ 6.2 / .1						
5.20	13.80	57.1	4.057	1.311	2.814	0.983
5.30	13.80	58.4	4.042	1.296	2.814	0.983
5.40	13.80	59.7	4.028	1.281	2.814	0.983
5.50	13.80	61.0	4.015	1.268	2.814	0.983
5.60	13.80	62.3	4.002	1.255	2.814	0.983
5.70	13.80	63.6	3.990	1.242	2.814	0.983
5.80	13.80	64.9	3.978	1.230	2.814	0.983
5.90	13.80	66.2	3.966	1.218	2.814	0.983
6.00	13.80	67.5	3.955	1.207	2.814	0.983
6.10	13.80	68.8	3.945	1.196	2.814	0.983
6.20	13.80	70.1	3.935	1.186	2.814	0.983
Variació a/b per RT constant						
ratio inicial= .983 desviació= .01						
a= 5.20/ 6.2 / .1	b= 13.8 / 14.8 / .1					
	13.80	57.1	4.057	1.311	2.814	0.983
	13.90	57.5	4.026	1.307	2.814	0.976
	13.80	58.4	4.042	1.296	2.814	0.983
	13.90	58.8	4.012	1.292	2.814	0.976

13.80	59.7	4.028	1.231	2.814	0.983
13.90	60.1	3.998	1.278	2.814	0.976
13.80	61.0	4.015	1.268	2.814	0.983
13.90	61.5	3.984	1.265	2.814	0.976
13.80	62.3	4.002	1.255	2.814	0.983
13.90	62.8	3.971	1.251	2.814	0.976
13.80	63.6	3.990	1.242	2.814	0.983
13.90	64.1	3.959	1.239	2.814	0.976
13.80	64.9	3.978	1.230	2.814	0.983
13.90	65.4	3.947	1.227	2.814	0.976
13.80	66.2	3.966	1.218	2.814	0.983
13.90	66.7	3.936	1.215	2.814	0.976
13.80	67.5	3.955	1.207	2.814	0.983
13.90	68.0	3.925	1.204	2.814	0.976
13.80	68.8	3.945	1.196	2.814	0.983
13.90	69.3	3.915	1.193	2.814	0.976
13.80	70.1	3.935	1.186	2.814	0.983
13.90	70.6	3.905	1.183	2.814	0.976

Variació a/b per S constant
a= 5.2 / 6.2 / .1

5.20	13.80	57.1	4.058	1.311	2.814	0.983
5.30	13.51	57.1	4.135	1.306	2.814	1.003
5.40	13.24	57.1	4.212	1.301	2.814	1.023
5.50	12.97	57.1	4.289	1.297	2.814	1.043
5.60	12.72	57.1	4.366	1.293	2.814	1.062
5.70	12.48	57.1	4.442	1.289	2.814	1.082
5.80	12.25	57.1	4.519	1.286	2.814	1.102
5.90	12.02	57.1	4.596	1.283	2.814	1.121
6.00	11.81	57.1	4.673	1.280	2.814	1.141
6.10	11.60	57.1	4.750	1.278	2.814	1.160
6.20	11.40	57.1	4.827	1.276	2.814	1.180

edifici: bio sertr
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 11.872
c= .53 d= 0 f= 0
kn= 4.4 1.25 2.1 4.4 5 .46 1.6 1.7 1.21 1.34 0 0 0 0 0 0 0 0
0 0
ckn= .1 .6 .1 .1 .1 .2 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.20	13.80	57.1	2.962	1.115	3.419	0.653

edifici: bio sertr
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 2.132
c= .187 d= 0 f= 0
kn= 4.4 .4 .46 4.4 5 .46 1.6 1.7 1.21 1.34 0 0 0 0 0 0 0 0 0
0
ckn= .1 .2 .2 .1 .1 .2 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 0 0 0
alfa= .8 0 0 0

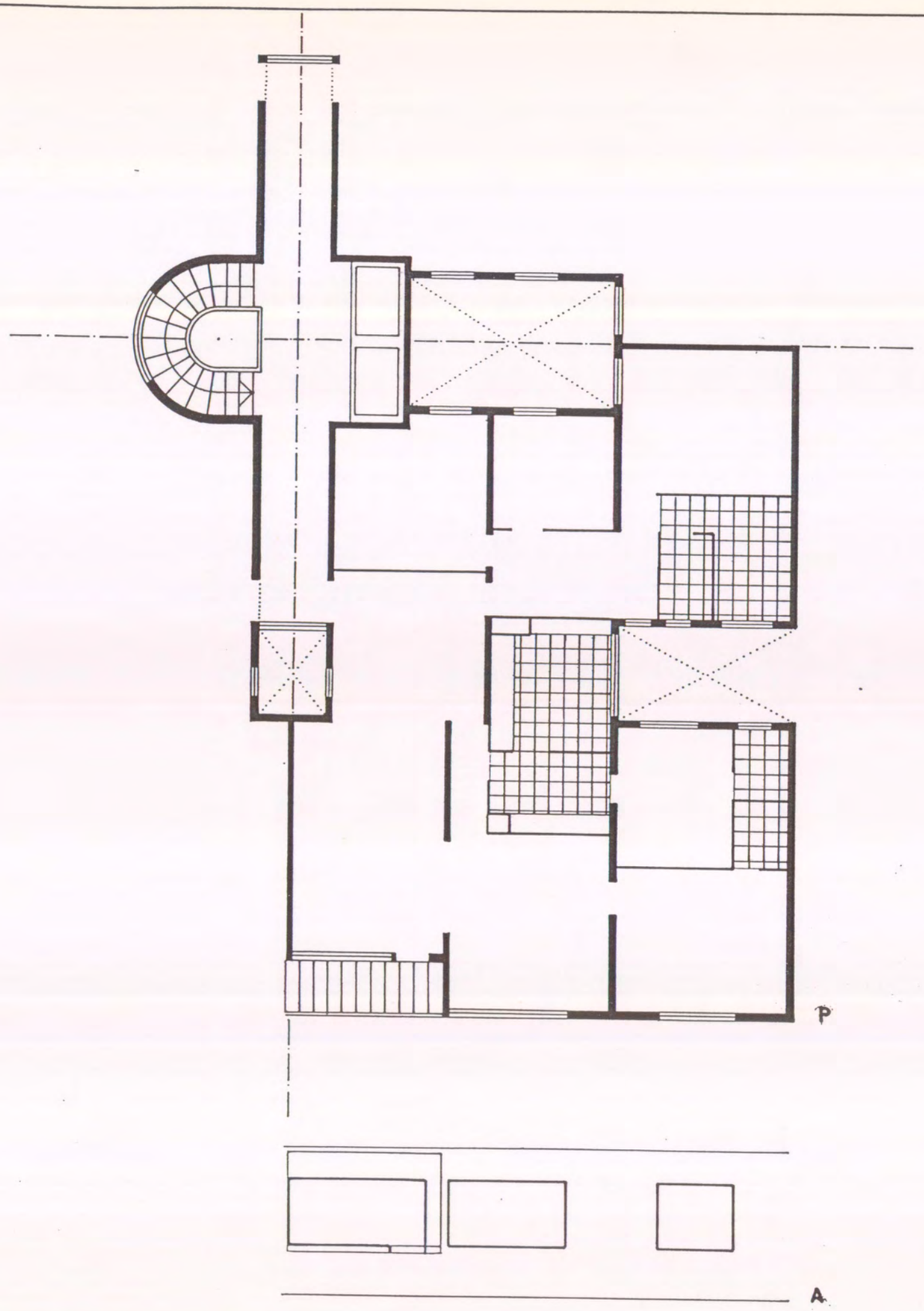
a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.20	13.80	57.1	1.202	1.012	0.614	0.739

edifici: bio sertr
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 7.071
c= .72 d= 0 f= 0
kn= 4.4 .4 .46 4.4 5 .46 1.6 1.7 1.21 1.34 0 0 0 0 0 0 0 0 0
0
ckn= .1 .2 .2 .1 .1 .2 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.20	13.80	57.1	2.910	1.046	2.036	0.943

edifici: bio sertr
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 9.771
c= .72 d= 0 f= 0
kn= 4.4 1.25 2.1 4.4 5 .46 1.6 1.7 1.21 1.34 0 0 0 0 0 0 0 0
0 0
ckn= .1 .6 .1 .1 .1 .2 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 0 0
alfa= .95 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.20	13.80	57.1	4.057	1.129	2.814	1.029



2.I.D.5

VIV. C/ARIBAU (B)

DURAN REYNALS

DATOS GEOMETRICOS

a = 10,30 m	(10,30/9,30 m)
b = 13,60 m	(13,60/12,60 m)
S = 113,80 m²	V = 341,49 m3
Si/S = 0,15	Sit/Sio = 0,28

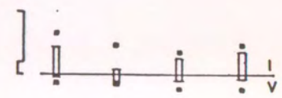
RATIOS TERMICOS (°C)

	sin aislar	aislado
invierno		
S	2,06	2,29
N	0,33	0,48
E	0,82	1,13
W	0,82	1,13
NE	1,55	1,73
SW	1,55	1,73
verano		
S	0,23	0,24
N	0,58	0,75
E	0,48	0,58
W	0,48	0,58
SE	0,34	0,35
SW	0,34	0,35

MASA TERMICA (kcal/°C m3)

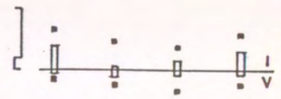
30,51	32,93

RT CON

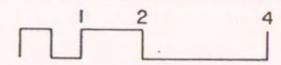


s n e·w se.sw

RT SIN



s n e.w se.sw



BARCELONA 85·88

E.T.S.A.B. U.P.C.

TESIS DOCTORAL · BIOCLIMATISMO Y TIPO ARQUITECTONICO EN CATALUÑA EN EL PERIODO 1930 1985 · VICTOR SEGUI SANTANA

	VIVIENDAS C/ ARIBAU (B) DURAN REYNALS	2105

CAPTORES TRANSPARENTES

1	V. SUR 1	S	0.815 A
		t	0.7
		CR	CR1
2	V. SUR 2	S	0.186 A C
		t	0.7
		CR	CR1
3	V. PATIO1	S	0.54 A
		t	0.7
		CR	PATIO
4	V. PATIO2	S	2.04
		t	0.7
		CR	PATIO
5		S	
		t	
		CR	
6		S	
		t	
		CR	

CAPTORES OPACOS

1	P. SUR 1	S	2.04 A
		CK	CK2
		α	0.6
		CR	CR1
2	P. PATIO 1	S	2.58 A
		CK	CK5
		α	0.6
		CR	PATIO
3	P. PATIO 2	S	7.76
		CK	CK5
		α	0.6
		CR	PATIO
4		S	
		CK	
		α	
		CR	
5		S	
		CK	
		α	
		CR	
6		S	
		CK	
		α	
		CR	
7		S	
		CK	
		α	
		CR	
8		S	
		CK	
		α	
		CR	
9		S	
		CK	
		α	
		CR	

CUBIERTA

1		S	
		CK	
		α	

TRANSMISION FACHADAS

1	V. SUR	S	A
		K	K
		K	K1
2	P. SUR	S	2.04A
		K	K2
		K	K1
3	V. PATIO1	S	0.22A
		K	K3
		K	PATIO
4	V. PATIO 2	S	1.08
		K	K3
		K	PATIO
5	V. PATIO 3	S	0.324A
		K	K4
		K	PATIO
6	V. PATIO 4	S	0.96
		K	K4
		K	PATIO
7	P. PATIO	S	2.58A
		K	K5
		K	PATIO
8	P. PATIO	S	7.76
		K	K5
		K	PATIO
9		S	
		K	
		K	
10		S	
		K	
		K	
11		S	
		K	
		K	
12		S	
		K	
		K	
13		S	
		K	
		K	
14		S	
		K	
		K	
15		S	
		K	
		K	
16		S	
		K	
		K	

INFILTRACIONES

		S	19.78
		K	0.695

SEPARACION TERRENO

1		S	
		K	
2		S	
		K	

SEPARACION OTROS LOCALES

1	P. LNC 1	S	1.16 B
		K	K6
2	P. LNC 2	S	6.44
		K	K6
3	PUERTA	S	1.68
		K	K7
4	MEDIAN 1/2	S	0.978A | 3.417B
		K	K8 | K8
5	FORJADOS	S	2(0.954B-1.052A -0.649xB)
		K	

TRANSMISION PIEL HORIZONT. CUBIERTA

1		S	
		K	
2		S	
		K	

SUPERFICIE EN PLANTA	2(0.953 A.B - 1.052A - 0.649 . B)

VIVIENDAS C/ ARIBAU (B) DURAN. REYNALS

21D5

VARIABLES GEOMETRICAS	A	B	Amin.	Amax.	I	Bmin.	Bmax.	I	DESVIACION	B para S Cte.	VOLUMEN	SUPERFICIE
	10.3	13.6	9.3	10.3	0.1	12.6	13.6	0.1	0.01	$B=\frac{(113.8+1.052A)}{10.955A-0.649}$	341.49	113.8

R=2800 INVIERNO

K_1	K_2	K_3	K_4	K_5	K_6	K_7	K_8	K_9	K_{10}	K_{11}	K_{12}	K_{13}	K_{14}	K_{15}	K_{16}	K_{17}	K_{18}
4.4	2.1	4.4	5	2.1	1.7	1.6	1.7	1.34									

O	RH	COEFICIENTES								COEFICIENTES DE TRANSMISION K																		RH	O
S	0.695	CR_1	1	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}			
		K_1	0.8	K_2		K_3		K_4		4.4	2.1	4.4	5	0.46	1.7	1.6	1.7	1.34											
		C	0.88	D		F		G																					
N	0.695	CR_1	0.137	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}			
		K_1	1.2	K_2		K_3		K_4		4.4	0.46	4.4	5	0.46	1.7	1.6	1.7	1.34											
		C	1	D		F		G																					
E	0.695	CR_1	0.3977	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}			
		K_1	1	K_2		K_3		K_4		4.4	0.46	4.4	5	0.46	1.7	1.6	1.7	1.34											
		C	0.72	D		F		G																					
W		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}			
		K_1		K_2		K_3		K_4																					
		C		D		F		G																					
SE	0.695	CR_1	0.768	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}			
		K_1	0.9	K_2		K_3		K_4		4.4	2.1	4.4	5	0.46	1.7	1.6	1.7	1.34											
		C	0.79	D		F		G																					
SW		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}			
		K_1		K_2		K_3		K_4																					
		C		D		F		G																					

VERANO R=2050

																				RH	O
	CR_4		CR_3		CR_2	1	CR_1														S
	K_4		K_3		K_2	0.9	K_1														
	G		F		D	0.71	C													27.442	
	CR_4		CR_3		CR_2	0.756	CR_1														N
	K_4		K_3		K_2	0.8	K_1														
	G		F		D	0.187	C													4.928	
	CR_4		CR_3		CR_2	1.345	CR_1														E
	K_4		K_3		K_2	1	K_1														
	G		F		D	0.84	C													16.347	
	CR_4	-	CR_3		CR_2		CR_1														W
	K_4		K_3		K_2		K_1														
	G		F		D		C														
	CR_4		CR_3		CR_2	1.2469	CR_1														SE
	K_4		K_3		K_2	0.95	K_1														
	G		F		D	0.73	C													22.586	
	CR_4		CR_3		CR_2		CR_1														SW
	K_4		K_3		K_2		K_1														
	G		F		D		C														

```
44 REM ************** ESQUELET DE L'EDIFICI:duran2          *****************
45 REM
50 DO=CR1*(.815*A*.7+.186*A*C*.7)                          'façana 1 - Capt.transp.
CRi*s*t
52 DA=CR2*0                          'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*0                          'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                          'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*(.54*A*.7+2.04*.7)    'patis    - Capt.transp. CRi*s*t
60 DP=CR1*2.04*A*CK2*.6                          'façana 1 - Capt.opacs  CRi*s*abs*c
kn
62 DD=CR2*0                          'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*0                          'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*0                          'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*(2.58*A*CK5*.6+7.76*CK5*.6)                        'patis    - Capt.opac
s  CRi*s*abs*ckn
70 DN=.52*0                          'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=(.953*A*B-1.052*A-.649*B)'superficie en planta   funció a i b
74 DU=A1*(A*K1+2.04*A*K2)                          'façana 1 - Transmissió  ai*s*kn
76 DK=A2*0                           'façana 2 - Transmissió  ai*s*kn
78 DL=A3*0                           'façana 3 - Transmissió  ai*s*kn
80 DM=A4*0                           'façana 4 - Transmissió  ai*s*kn
82 DH=.8*(.22*A*K3+1.08*K3+.324*A*K4+.96*K4+2.58*A*K5+7.76*K5)
    'patis    - Transmissió  ai*s*kn
84 DV=0                              'terra    - Transmissió  s*kn
86 DW=(1.16*B*K6)+(6.44*K6)+(1.68*K7)+(.978*A*K8)+(3.417*B*K8)+(2*(.953*A*B-1.05
2*A-.649*B)*K9)                        'locals   - Transmissió  s*kn
88 DX=0                              'coberta  - Transmissió  s*kn
89 RETURN
90 B=(113.8+1.052*A)/(.953*A-.649)                  'valor b per S constant   (fun
ció de a)
```

variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= .695
c= .88 d= 0 f= 0
kn= 4.4 2.1 4.4 5 2.1 1.7 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .1 .1 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .8 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
10.30	13.60	113.8	2.967	1.239	0.200	2.061
Variació a amb b constant						
a= 9.30/ 10.3 / .1						
9.30	13.60	101.9	2.996	1.274	0.200	2.031
9.40	13.60	103.1	2.993	1.271	0.200	2.034
9.50	13.60	104.3	2.990	1.267	0.200	2.038
9.60	13.60	105.5	2.987	1.263	0.200	2.041
9.70	13.60	106.7	2.984	1.259	0.200	2.044
9.80	13.60	107.9	2.981	1.256	0.200	2.047
9.90	13.60	109.1	2.978	1.252	0.200	2.050
10.00	13.60	110.3	2.975	1.249	0.200	2.053
10.10	13.60	111.5	2.973	1.246	0.200	2.055
10.20	13.60	112.6	2.970	1.242	0.200	2.058
10.30	13.60	113.8	2.967	1.239	0.200	2.061
Variació a/b per RT constant						
ratio inicial= 2.061 desviació= .01						
a= 9.30/ 10.3 / .1	b= 12.6 / 13.6 / .1					
13.30	99.5	3.070	1.288	0.200	2.062	
13.40	100.3	3.045	1.283	0.200	2.052	
13.30	100.6	3.067	1.284	0.200	2.066	
13.40	101.5	3.042	1.280	0.200	2.055	
13.30	101.8	3.064	1.280	0.200	2.069	
13.40	102.6	3.039	1.276	0.200	2.058	
13.40	103.8	3.036	1.272	0.200	2.062	
13.40	105.0	3.033	1.268	0.200	2.065	
13.50	105.8	3.008	1.264	0.200	2.054	
13.40	106.1	3.030	1.265	0.200	2.068	
13.50	107.0	3.005	1.260	0.200	2.057	
13.50	108.2	3.002	1.257	0.200	2.060	
13.50	109.4	2.999	1.253	0.200	2.063	
13.60	110.3	2.975	1.249	0.200	2.053	
13.50	110.6	2.997	1.250	0.200	2.066	
13.60	111.5	2.973	1.246	0.200	2.055	
13.50	111.7	2.994	1.247	0.200	2.069	
13.60	112.6	2.970	1.242	0.200	2.058	
13.60	113.8	2.967	1.239	0.200	2.061	
Variació a/b per S constant						
a= 9.3 / 10.3 / .1						
9.30	15.05	113.8	2.683	1.217	0.200	1.893
9.40	14.89	113.8	2.712	1.219	0.200	1.910
9.50	14.73	113.8	2.740	1.221	0.200	1.927
9.60	14.58	113.8	2.769	1.223	0.200	1.944
9.70	14.43	113.8	2.797	1.226	0.200	1.962
9.80	14.28	113.8	2.826	1.228	0.200	1.978
9.90	14.14	113.8	2.854	1.230	0.200	1.995
10.00	14.00	113.8	2.883	1.232	0.200	2.012
10.10	13.86	113.8	2.911	1.235	0.200	2.029
10.20	13.73	113.8	2.940	1.237	0.200	2.045
10.30	13.60	113.8	2.968	1.239	0.200	2.061

edifici: duran2
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= .695
c= 1 d= 0 f= 0
kn= 4.4 2.1 4.4 5 2.1 1.7 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .1 .1 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 0 0 0
alfa= 1.2 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
10.30	13.60	113.8	0.523	1.344	0.200	0.338
Variació a amb b constant						
a= 9.30/ 10.3 / .1						
9.30	13.60	101.9	0.531	1.380	0.200	0.335
9.40	13.60	103.1	0.530	1.376	0.200	0.336
9.50	13.60	104.3	0.529	1.372	0.200	0.336
9.60	13.60	105.5	0.528	1.368	0.200	0.336
9.70	13.60	106.7	0.527	1.365	0.200	0.337
9.80	13.60	107.9	0.527	1.361	0.200	0.337
9.90	13.60	109.1	0.526	1.357	0.200	0.337
10.00	13.60	110.3	0.525	1.354	0.200	0.337
10.10	13.60	111.5	0.524	1.351	0.200	0.338
10.20	13.60	112.6	0.524	1.347	0.200	0.338
10.30	13.60	113.8	0.523	1.344	0.200	0.338
Variació a/b per RT constant						
ratio inicial= .338 desviació= .01						
a= 9.30/ 10.3 / .1	b= 12.6 / 13.6 / .1					
12.90	96.2	0.563	1.419	0.200	0.347	
13.00	97.0	0.558	1.413	0.200	0.345	
13.10	97.8	0.553	1.408	0.200	0.343	
13.20	98.6	0.548	1.402	0.200	0.342	
13.30	99.5	0.544	1.396	0.200	0.340	
13.40	100.3	0.539	1.391	0.200	0.339	
13.50	101.1	0.535	1.385	0.200	0.337	
13.60	101.9	0.531	1.380	0.200	0.335	
12.90	97.3	0.562	1.415	0.200	0.347	
13.00	98.1	0.557	1.409	0.200	0.345	
13.10	99.0	0.552	1.404	0.200	0.344	
13.20	99.8	0.548	1.398	0.200	0.342	
13.30	100.6	0.543	1.392	0.200	0.341	
13.40	101.5	0.539	1.387	0.200	0.339	
13.50	102.3	0.534	1.381	0.200	0.337	
13.60	103.1	0.530	1.376	0.200	0.336	
12.90	98.4	0.561	1.411	0.200	0.347	
13.00	99.3	0.556	1.405	0.200	0.346	
13.10	100.1	0.551	1.400	0.200	0.344	
13.20	100.9	0.547	1.394	0.200	0.342	
13.30	101.8	0.542	1.388	0.200	0.341	
13.40	102.6	0.538	1.383	0.200	0.339	
13.50	103.5	0.533	1.378	0.200	0.338	
13.60	104.3	0.529	1.372	0.200	0.336	
13.00	100.4	0.555	1.401	0.200	0.346	
13.10	101.2	0.550	1.396	0.200	0.344	
13.20	102.1	0.546	1.390	0.200	0.343	
13.30	102.9	0.541	1.384	0.200	0.341	
13.40	103.8	0.537	1.379	0.200	0.339	
13.50	104.6	0.533	1.374	0.200	0.338	
13.60	105.5	0.528	1.368	0.200	0.336	
13.00	101.5	0.554	1.398	0.200	0.346	
13.10	102.4	0.550	1.392	0.200	0.345	
13.20	103.3	0.545	1.386	0.200	0.343	

13.30	104.1	0.540	1.381	0.200	0.341
13.40	105.0	0.536	1.375	0.200	0.340
13.50	105.8	0.532	1.370	0.200	0.338
13.60	106.7	0.527	1.365	0.200	0.337
13.00	102.7	0.553	1.394	0.200	0.347
13.10	103.5	0.549	1.388	0.200	0.345
13.20	104.4	0.544	1.383	0.200	0.343
13.30	105.3	0.540	1.377	0.200	0.342
13.40	106.1	0.535	1.372	0.200	0.340
13.50	107.0	0.531	1.366	0.200	0.338
13.60	107.9	0.527	1.361	0.200	0.337
13.00	103.8	0.553	1.390	0.200	0.347
13.10	104.7	0.548	1.385	0.200	0.345
13.20	105.6	0.543	1.379	0.200	0.344
13.30	106.4	0.539	1.373	0.200	0.342
13.40	107.3	0.534	1.368	0.200	0.340
13.50	108.2	0.530	1.363	0.200	0.339
13.60	109.1	0.526	1.357	0.200	0.337
13.00	104.9	0.552	1.387	0.200	0.347
13.10	105.8	0.547	1.381	0.200	0.346
13.20	106.7	0.543	1.375	0.200	0.344
13.30	107.6	0.538	1.370	0.200	0.342
13.40	108.5	0.534	1.365	0.200	0.341
13.50	109.4	0.529	1.359	0.200	0.339
13.60	110.3	0.525	1.354	0.200	0.337
13.00	106.1	0.551	1.383	0.200	0.347
13.10	107.0	0.546	1.378	0.200	0.346
13.20	107.9	0.542	1.372	0.200	0.344
13.30	108.8	0.537	1.366	0.200	0.342
13.40	109.7	0.533	1.361	0.200	0.341
13.50	110.6	0.529	1.356	0.200	0.339
13.60	111.5	0.524	1.351	0.200	0.338
13.10	108.1	0.546	1.374	0.200	0.346
13.20	109.0	0.541	1.369	0.200	0.344
13.30	109.9	0.537	1.363	0.200	0.343
13.40	110.8	0.532	1.358	0.200	0.341
13.50	111.7	0.528	1.352	0.200	0.339
13.60	112.6	0.524	1.347	0.200	0.338
13.10	109.3	0.545	1.371	0.200	0.346
13.20	110.2	0.540	1.365	0.200	0.345
13.30	111.1	0.536	1.360	0.200	0.343
13.40	112.0	0.531	1.354	0.200	0.341
13.50	112.9	0.527	1.349	0.200	0.340
13.60	113.8	0.523	1.344	0.200	0.338

Variació a/b per S constant
a= 9.3 / 10.3 / .1

9.30	15.05	113.8	0.475	1.312	0.200	0.314
9.40	14.89	113.8	0.480	1.315	0.200	0.316
9.50	14.73	113.8	0.485	1.318	0.200	0.319
9.60	14.58	113.8	0.490	1.321	0.200	0.321
9.70	14.43	113.8	0.494	1.324	0.200	0.324
9.80	14.28	113.8	0.499	1.327	0.200	0.326
9.90	14.14	113.8	0.504	1.331	0.200	0.329
10.00	14.00	113.8	0.509	1.334	0.200	0.331
10.10	13.86	113.8	0.514	1.337	0.200	0.333
10.20	13.73	113.8	0.518	1.341	0.200	0.336
10.30	13.60	113.8	0.523	1.344	0.200	0.338

edifici: duran2
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= .695
c= .72 d= 0 f= 0
kn= 4.4 2.1 4.4 5 2.1 1.7 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0
0
cn= .1 .1 .1 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
10.30	13.60	113.8	1.227	1.292	0.200	0.822
Variació a amb b constant						
a= 9.30/ 10.3 / .1						
9.30	13.60	101.9	1.241	1.327	0.200	0.812
9.40	13.60	103.1	1.239	1.323	0.200	0.813
9.50	13.60	104.3	1.238	1.319	0.200	0.814
9.60	13.60	105.5	1.236	1.316	0.200	0.815
9.70	13.60	106.7	1.235	1.312	0.200	0.816
9.80	13.60	107.9	1.233	1.308	0.200	0.817
9.90	13.60	109.1	1.232	1.305	0.200	0.818
10.00	13.60	110.3	1.231	1.301	0.200	0.819
10.10	13.60	111.5	1.229	1.298	0.200	0.820
10.20	13.60	112.6	1.228	1.295	0.200	0.821
10.30	13.60	113.8	1.227	1.292	0.200	0.822
Variació a/b per RT constant						
ratio inicial= .822 desviació= .01						
a= 9.30/ 10.3 / .1	b= 12.6 / 13.6 / .1					
	13.20	98.6	1.282	1.347	0.200	0.828
	13.30	99.5	1.271	1.342	0.200	0.824
	13.40	100.3	1.261	1.337	0.200	0.820
	13.50	101.1	1.251	1.332	0.200	0.816
	13.20	99.8	1.280	1.343	0.200	0.829
	13.30	100.6	1.270	1.338	0.200	0.825
	13.40	101.5	1.260	1.333	0.200	0.821
	13.50	102.3	1.249	1.328	0.200	0.817
	13.60	103.1	1.239	1.323	0.200	0.813
	13.20	100.9	1.279	1.339	0.200	0.830
	13.30	101.8	1.268	1.334	0.200	0.826
	13.40	102.6	1.258	1.329	0.200	0.822
	13.50	103.5	1.248	1.324	0.200	0.818
	13.60	104.3	1.238	1.319	0.200	0.814
	13.20	102.1	1.277	1.336	0.200	0.831
	13.30	102.9	1.267	1.331	0.200	0.827
	13.40	103.8	1.257	1.326	0.200	0.823
	13.50	104.6	1.246	1.321	0.200	0.819
	13.60	105.5	1.236	1.316	0.200	0.815
	13.30	104.1	1.265	1.327	0.200	0.828
	13.40	105.0	1.255	1.322	0.200	0.824
	13.50	105.8	1.245	1.317	0.200	0.820
	13.60	106.7	1.235	1.312	0.200	0.816
	13.30	105.3	1.264	1.323	0.200	0.829
	13.40	106.1	1.254	1.318	0.200	0.825
	13.50	107.0	1.243	1.313	0.200	0.821
	13.60	107.9	1.233	1.308	0.200	0.817
	13.30	106.4	1.263	1.320	0.200	0.830
	13.40	107.3	1.252	1.315	0.200	0.826
	13.50	108.2	1.242	1.310	0.200	0.822
	13.60	109.1	1.232	1.305	0.200	0.818
	13.30	107.6	1.261	1.316	0.200	0.831
	13.40	108.5	1.251	1.311	0.200	0.827
	13.50	109.4	1.241	1.306	0.200	0.823
	13.60	110.3	1.231	1.301	0.200	0.819
	13.40	109.7	1.250	1.308	0.200	0.828
	13.50	110.6	1.239	1.303	0.200	0.824
	13.60	111.5	1.229	1.298	0.200	0.820
	13.40	110.8	1.248	1.304	0.200	0.829
	13.50	111.7	1.238	1.300	0.200	0.825
	13.60	112.6	1.228	1.295	0.200	0.821
	13.40	112.0	1.247	1.301	0.200	0.830
	13.50	112.9	1.237	1.296	0.200	0.826
	13.60	113.8	1.227	1.292	0.200	0.822

Variació a/b per S constant
a= 9.3 / 10.3 / .1

9.30	15.05	113.8	1.111	1.264	0.200	0.758
9.40	14.89	113.8	1.123	1.267	0.200	0.765
9.50	14.73	113.8	1.134	1.270	0.200	0.771
9.60	14.58	113.8	1.146	1.272	0.200	0.778
9.70	14.43	113.8	1.158	1.275	0.200	0.784
9.80	14.28	113.8	1.169	1.278	0.200	0.791
9.90	14.14	113.8	1.181	1.280	0.200	0.797
10.00	14.00	113.8	1.192	1.283	0.200	0.803
10.10	13.86	113.8	1.204	1.286	0.200	0.810
10.20	13.73	113.8	1.216	1.289	0.200	0.816
10.30	13.60	113.8	1.227	1.292	0.200	0.822

edifici: duran2
variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= .695
c= .79 d= 0 f= 0
kn= 4.4 2.1 4.4 5 2.1 1.7 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
10.30	13.60	113.8	2.277	1.265	0.200	1.553
Variació a amb b constant						
a= 9.30/ 10.3 / .1						
9.30	13.60	101.9	2.299	1.301	0.200	1.531
9.40	13.60	103.1	2.297	1.297	0.200	1.534
9.50	13.60	104.3	2.294	1.293	0.200	1.536
9.60	13.60	105.5	2.292	1.289	0.200	1.538
9.70	13.60	106.7	2.290	1.286	0.200	1.540
9.80	13.60	107.9	2.287	1.282	0.200	1.543
9.90	13.60	109.1	2.285	1.279	0.200	1.545
10.00	13.60	110.3	2.283	1.275	0.200	1.547
10.10	13.60	111.5	2.281	1.272	0.200	1.549
10.20	13.60	112.6	2.279	1.269	0.200	1.551
10.30	13.60	113.8	2.277	1.265	0.200	1.553
Variació a/b per RT constant						
ratio inicial= 1.553 desviació= .01						
a= 9.30/ 10.3 / .1 b= 12.6 / 13.6 / .1						
13.20	98.6	2.376	1.320	0.200	1.562	
13.30	99.5	2.356	1.315	0.200	1.554	
13.40	100.3	2.337	1.310	0.200	1.547	
13.30	100.6	2.354	1.311	0.200	1.557	
13.40	101.5	2.334	1.306	0.200	1.549	
13.30	101.8	2.351	1.307	0.200	1.559	
13.40	102.6	2.332	1.302	0.200	1.551	
13.50	103.5	2.313	1.298	0.200	1.544	
13.30	102.9	2.349	1.304	0.200	1.561	
13.40	103.8	2.329	1.299	0.200	1.554	
13.50	104.6	2.310	1.294	0.200	1.546	
13.40	105.0	2.327	1.295	0.200	1.556	
13.50	105.8	2.308	1.290	0.200	1.548	
13.40	106.1	2.325	1.291	0.200	1.558	
13.50	107.0	2.306	1.287	0.200	1.550	
13.40	107.3	2.322	1.288	0.200	1.560	
13.50	108.2	2.304	1.283	0.200	1.552	
13.60	109.1	2.285	1.279	0.200	1.545	
13.40	108.5	2.320	1.284	0.200	1.562	
13.50	109.4	2.301	1.280	0.200	1.554	
13.60	110.3	2.283	1.275	0.200	1.547	
13.50	110.6	2.299	1.276	0.200	1.557	
13.60	111.5	2.281	1.272	0.200	1.549	
13.50	111.7	2.297	1.273	0.200	1.559	
13.60	112.6	2.279	1.269	0.200	1.551	
13.50	112.9	2.295	1.270	0.200	1.561	
13.60	113.8	2.277	1.265	0.200	1.553	
Variació a/b per S constant						
a= 9.3 / 10.3 / .1						
9.30	15.05	113.8	2.059	1.241	0.200	1.429
9.40	14.89	113.8	2.081	1.243	0.200	1.441
9.50	14.73	113.8	2.103	1.245	0.200	1.454
9.60	14.58	113.8	2.125	1.248	0.200	1.467
9.70	14.43	113.8	2.146	1.250	0.200	1.479
9.80	14.28	113.8	2.168	1.253	0.200	1.492
9.90	14.14	113.8	2.190	1.255	0.200	1.504
10.00	14.00	113.8	2.212	1.258	0.200	1.517
10.10	13.86	113.8	2.234	1.260	0.200	1.529
10.20	13.73	113.8	2.255	1.263	0.200	1.541
10.30	13.60	113.8	2.277	1.266	0.200	1.553

edifici: duran2 BO
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= .695
c= .88 d= 0 f= 0
kn= 4.4 2.1 4.4 5 .46 1.7 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .1 .1 .1 .2 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .8 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
10.30	13.60	113.8	3.003	1.107	0.200	2.296

edifici: duran2
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= .695
c= 1 d= 0 f= 0
kn= 4.4 .46 4.4 5 .46 1.7 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .2 .1 .1 .2 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 0 0 0
alfa= 1.2 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
10.30	13.60	113.8	0.617	1.091	0.200	0.477

edifici: duran2
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= .695
c= .72 d= 0 f= 0
kn= 4.4 .46 4.4 5 .46 1.7 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0
0
kn= .1 .2 .1 .1 .2 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
10.30	13.60	113.8	1.433	1.059	0.200	1.138

edifici: duran2
variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= .695
c= .79 d= 0 f= 0
kn= 4.4 2.1 4.4 5 .46 1.7 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .1 .1 .1 .2 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
10.30	13.60	113.8	2.312	1.134	0.200	1.733

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44 REM *************** ESQUELET DE L'EDIFICI:duran2 ***********
45 REM
50 DO=CR1*(.815*A*.7+.186*A*C*.7)                    'façana 1 - Capt.transp
CRi*s*t
52 DA=CR2*0                          'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*0                          'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                          'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*(.54*A*.7+2.04*.7)    'patis    - Capt.transp. CRi*s*t
60 DP=CR1*2.04*A*CK2*.6                    'façana 1 - Capt.opacs  CRi*s*abs
kn
62 DD=CR2*0                          'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*0                          'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*0                          'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*(2.58*A*CK5*.6+7.76*CK5*.6)                'patis    - Capt.op
s  CRi*s*abs*ckn
70 DN=2.4*0                          'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=(.953*A*B-1.052*A-.649*B)'superfície en planta   funció a i b
74 DU=A1*(A*K1+2.04*A*K2)                    'façana 1 - Transmissió  ai*s*k
76 DK=A2*0                           'façana 2 - Transmissió  ai*s*kn
78 DL=A3*0                           'façana 3 - Transmissió  ai*s*kn
80 DM=A4*0                           'façana 4 - Transmissió  ai*s*kn
82 DH=.8*(.22*A*K3+1.08*K3+.324*A*K4+.96*K4+2.58*A*K5+7.76*K5)
    'patis    - Transmissió  ai*s*kn
84 DV=0                              'terra    - Transmissió  s*kn
86 DW=(1.16*B*K6)+(6.44*K6)+(1.68*K7)+(.978*A*K8)+(3.417*B*K8)+(2*(.953*A*B-1
2*A-.649*B)*K9)                      'locals   - Transmissió  s*kn
88 DX=0                              'coberta  - Transmissió  s*kn
89 RETURN
90 B=(113.8+1.052*A)/(.953*A-.649)                   'valor b per S constant
ció de a)
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edifici: duran2
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 27.442
c= .71 d= 0 f= 0
kn= 4.4 2.1 4.4 5 2.1 1.7 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
10.30	13.60	113.8	2.116	1.136	7.903	0.234
Variació a amb b constant						
a= 9.30/ 10.3 / .1						
9.30	13.60	101.9	2.136	1.167	7.903	0.235
9.40	13.60	103.1	2.134	1.164	7.903	0.235
9.50	13.60	104.3	2.131	1.161	7.903	0.235
9.60	13.60	105.5	2.129	1.157	7.903	0.235
9.70	13.60	106.7	2.127	1.154	7.903	0.234
9.80	13.60	107.9	2.125	1.151	7.903	0.234
9.90	13.60	109.1	2.123	1.148	7.903	0.234
10.00	13.60	110.3	2.121	1.145	7.903	0.234
10.10	13.60	111.5	2.119	1.142	7.903	0.234
10.20	13.60	112.6	2.117	1.139	7.903	0.234
10.30	13.60	113.8	2.116	1.136	7.903	0.234
Variació a/b per RT constant						
ratio inicial= .234 desviació= .01						
a= 9.30/ 10.3 / .1	b= 12.6 / 13.6 / .1					
	13.20	98.6	2.207	1.186	7.903	0.242
	13.30	99.5	2.189	1.181	7.903	0.240
	13.40	100.3	2.171	1.177	7.903	0.239
	13.50	101.1	2.153	1.172	7.903	0.237
	13.60	101.9	2.136	1.167	7.903	0.235
	13.20	99.8	2.205	1.183	7.903	0.242
	13.30	100.6	2.187	1.178	7.903	0.240
	13.40	101.5	2.169	1.173	7.903	0.238
	13.50	102.3	2.151	1.169	7.903	0.237
	13.60	103.1	2.134	1.164	7.903	0.235
	13.20	100.9	2.202	1.179	7.903	0.242
	13.30	101.8	2.184	1.174	7.903	0.240
	13.40	102.6	2.166	1.170	7.903	0.238
	13.50	103.5	2.149	1.165	7.903	0.236
	13.60	104.3	2.131	1.161	7.903	0.235
	13.20	102.1	2.200	1.176	7.903	0.242
	13.30	102.9	2.182	1.171	7.903	0.240
	13.40	103.8	2.164	1.166	7.903	0.238
	13.50	104.6	2.147	1.162	7.903	0.236
	13.60	105.5	2.129	1.157	7.903	0.235
	13.20	103.3	2.198	1.173	7.903	0.242
	13.30	104.1	2.180	1.168	7.903	0.240
	13.40	105.0	2.162	1.163	7.903	0.238
	13.50	105.8	2.144	1.159	7.903	0.236
	13.60	106.7	2.127	1.154	7.903	0.234
	13.10	103.5	2.214	1.174	7.903	0.243
	13.20	104.4	2.196	1.169	7.903	0.242
	13.30	105.3	2.178	1.165	7.903	0.240
	13.40	106.1	2.160	1.160	7.903	0.238
	13.50	107.0	2.142	1.155	7.903	0.236
	13.60	107.9	2.125	1.151	7.903	0.234
	13.10	104.7	2.212	1.171	7.903	0.243
	13.20	105.6	2.194	1.166	7.903	0.241
	13.30	106.4	2.176	1.162	7.903	0.240
	13.40	107.3	2.158	1.157	7.903	0.238
	13.50	108.2	2.140	1.152	7.903	0.236
	13.60	109.1	2.123	1.148	7.903	0.234
	13.10	105.8	2.210	1.168	7.903	0.243
	13.20	106.7	2.192	1.163	7.903	0.241
	13.30	107.6	2.174	1.158	7.903	0.239
	13.40	108.5	2.156	1.154	7.903	0.238
	13.50	109.4	2.138	1.149	7.903	0.236
	13.60	110.3	2.121	1.145	7.903	0.234
	13.10	107.0	2.208	1.165	7.903	0.243
	13.20	107.9	2.190	1.160	7.903	0.241
	13.30	108.8	2.172	1.155	7.903	0.239
	13.40	109.7	2.154	1.151	7.903	0.237
	13.50	110.6	2.136	1.146	7.903	0.236
	13.60	111.5	2.119	1.142	7.903	0.234
	13.10	108.1	2.206	1.162	7.903	0.243
	13.20	109.0	2.188	1.157	7.903	0.241
	13.30	109.9	2.170	1.153	7.903	0.239
	13.40	110.8	2.152	1.148	7.903	0.237
	13.50	111.7	2.135	1.143	7.903	0.235
	13.60	112.6	2.117	1.139	7.903	0.234
	13.10	109.3	2.204	1.159	7.903	0.243
	13.20	110.2	2.186	1.154	7.903	0.241
	13.30	111.1	2.168	1.150	7.903	0.239
	13.40	112.0	2.150	1.145	7.903	0.237
	13.50	112.9	2.133	1.141	7.903	0.235
	13.60	113.8	2.116	1.136	7.903	0.234
Variació a/b per S constant						
a= 9.3 / 10.3 / .1						
9.30	15.05	113.8	1.913	1.109	7.903	0.212
9.40	14.89	113.8	1.933	1.111	7.903	0.214
9.50	14.73	113.8	1.954	1.114	7.903	0.216
9.60	14.58	113.8	1.974	1.117	7.903	0.218
9.70	14.43	113.8	1.994	1.119	7.903	0.221
9.80	14.28	113.8	2.015	1.122	7.903	0.223
9.90	14.14	113.8	2.035	1.125	7.903	0.225
10.00	14.00	113.8	2.055	1.128	7.903	0.227
10.10	13.86	113.8	2.076	1.130	7.903	0.229
10.20	13.73	113.8	2.096	1.133	7.903	0.231
10.30	13.60	113.8	2.116	1.136	7.903	0.234

edifici: duran2
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 4.928
c= .187 d= 0 f= 0
kn= 4.4 2.1 4.4 5 2.1 1.7 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 0 0 0
alfa= .8 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
10.30	13.60	113.8	1.489	1.110	1.419	0.588

Variació a amb b constant
a= 9.30/ 10.3 / .1

9.30	13.60	101.9	1.504	1.141	1.419	0.587
9.40	13.60	103.1	1.503	1.138	1.419	0.587
9.50	13.60	104.3	1.501	1.134	1.419	0.587
9.60	13.60	105.5	1.499	1.131	1.419	0.587
9.70	13.60	106.7	1.498	1.128	1.419	0.588
9.80	13.60	107.9	1.496	1.125	1.419	0.588
9.90	13.60	109.1	1.495	1.122	1.419	0.588
10.00	13.60	110.3	1.493	1.119	1.419	0.588
10.10	13.60	111.5	1.492	1.116	1.419	0.588
10.20	13.60	112.6	1.491	1.113	1.419	0.588
10.30	13.60	113.8	1.489	1.110	1.419	0.588

Variació a/b per RT constant
ratio inicial= .588 desviació= .01
a= 9.30/ 10.3 / .1 b= 12.6 / 13.6 / .1

13.40	100.3	1.529	1.150	1.419	0.595
13.50	101.1	1.517	1.145	1.419	0.591
13.60	101.9	1.504	1.141	1.419	0.587
13.40	101.5	1.527	1.146	1.419	0.595
13.50	102.3	1.515	1.142	1.419	0.591
13.60	103.1	1.503	1.138	1.419	0.587
13.40	102.6	1.526	1.143	1.419	0.595
13.50	103.5	1.513	1.139	1.419	0.591
13.60	104.3	1.501	1.134	1.419	0.587
13.40	103.8	1.524	1.140	1.419	0.595
13.50	104.6	1.512	1.135	1.419	0.591
13.60	105.5	1.499	1.131	1.419	0.587
13.40	105.0	1.522	1.136	1.419	0.595
13.50	105.8	1.510	1.132	1.419	0.591
13.60	106.7	1.498	1.128	1.419	0.588
13.40	106.1	1.521	1.133	1.419	0.595
13.50	107.0	1.509	1.129	1.419	0.592
13.60	107.9	1.496	1.125	1.419	0.588
13.40	107.3	1.519	1.130	1.419	0.595
13.50	108.2	1.507	1.126	1.419	0.592
13.60	109.1	1.495	1.122	1.419	0.588
13.40	108.5	1.518	1.127	1.419	0.596
13.50	109.4	1.506	1.123	1.419	0.592
13.60	110.3	1.493	1.119	1.419	0.588
13.40	109.7	1.516	1.124	1.419	0.596
13.50	110.6	1.504	1.120	1.419	0.592
13.60	111.5	1.492	1.116	1.419	0.588
13.40	110.8	1.515	1.121	1.419	0.596
13.50	111.7	1.503	1.117	1.419	0.592
13.60	112.6	1.491	1.113	1.419	0.588
13.40	112.0	1.514	1.118	1.419	0.596
13.50	112.9	1.501	1.114	1.419	0.592
13.60	113.8	1.489	1.110	1.419	0.588

Variació a/b per S constant
a= 9.3 / 10.3 / .1

9.30	15.05	113.8	1.347	1.085	1.419	0.538
9.40	14.89	113.8	1.362	1.087	1.419	0.543
9.50	14.73	113.8	1.376	1.090	1.419	0.548
9.60	14.58	113.8	1.390	1.092	1.419	0.553
9.70	14.43	113.8	1.404	1.095	1.419	0.558
9.80	14.28	113.8	1.419	1.097	1.419	0.563
9.90	14.14	113.8	1.433	1.100	1.419	0.568
10.00	14.00	113.8	1.447	1.102	1.419	0.573
10.10	13.86	113.8	1.461	1.105	1.419	0.578
10.20	13.73	113.8	1.475	1.107	1.419	0.583
10.30	13.60	113.8	1.490	1.110	1.419	0.588

edifici: duran2
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 16.347
c= .84 d= 0 f= 0
kn= 4.4 2.1 4.4 5 2.1 1.7 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
10.30	13.60	113.8	2.872	1.162	4.708	0.489
Variació a amb b constant						
a= 9.30/ 10.3 / .1						
9.30	13.60	101.9	2.899	1.194	4.708	0.491
9.40	13.60	103.1	2.896	1.190	4.708	0.490
9.50	13.60	104.3	2.893	1.187	4.708	0.490
9.60	13.60	105.5	2.890	1.184	4.708	0.490
9.70	13.60	106.7	2.888	1.180	4.708	0.490
9.80	13.60	107.9	2.885	1.177	4.708	0.490
9.90	13.60	109.1	2.882	1.174	4.708	0.490
10.00	13.60	110.3	2.880	1.171	4.708	0.489
10.10	13.60	111.5	2.877	1.168	4.708	0.489
10.20	13.60	112.6	2.875	1.165	4.708	0.489
10.30	13.60	113.8	2.872	1.162	4.708	0.489
Variació a/b per RT constant						
ratio inicial= .489 desviació= .01						
a= 9.30/ 10.3 / .1	b= 12.6 / 13.6 / .1					
13.40	100.3	2.946	1.203	4.708	0.498	
13.50	101.1	2.922	1.199	4.708	0.494	
13.60	101.9	2.899	1.194	4.708	0.491	
13.40	101.5	2.943	1.200	4.708	0.498	
13.50	102.3	2.919	1.195	4.708	0.494	
13.60	103.1	2.896	1.190	4.708	0.490	
13.40	102.6	2.940	1.197	4.708	0.498	
13.50	103.5	2.917	1.192	4.708	0.494	
13.60	104.3	2.893	1.187	4.708	0.490	
13.40	103.8	2.938	1.193	4.708	0.497	
13.50	104.6	2.914	1.188	4.708	0.494	
13.60	105.5	2.890	1.184	4.708	0.490	
13.40	105.0	2.935	1.190	4.708	0.497	
13.50	105.8	2.911	1.185	4.708	0.493	
13.60	106.7	2.888	1.180	4.708	0.490	
13.40	106.1	2.932	1.187	4.708	0.497	
13.50	107.0	2.908	1.182	4.708	0.493	
13.60	107.9	2.885	1.177	4.708	0.490	
13.40	107.3	2.929	1.184	4.708	0.497	
13.50	108.2	2.906	1.179	4.708	0.493	
13.60	109.1	2.882	1.174	4.708	0.490	
13.40	108.5	2.927	1.180	4.708	0.497	
13.50	109.4	2.903	1.176	4.708	0.493	
13.60	110.3	2.880	1.171	4.708	0.489	
13.40	109.7	2.924	1.177	4.708	0.496	
13.50	110.6	2.900	1.173	4.708	0.493	
13.60	111.5	2.877	1.168	4.708	0.489	
13.40	110.8	2.922	1.175	4.708	0.496	
13.50	111.7	2.898	1.170	4.708	0.493	
13.60	112.6	2.875	1.165	4.708	0.489	
13.40	112.0	2.919	1.172	4.708	0.496	
13.50	112.9	2.896	1.167	4.708	0.492	
13.60	113.8	2.872	1.162	4.708	0.489	

Variació a/b per S constant
a= 9.3 / 10.3 / .1

9.30	15.05	113.8	2.596	1.132	4.708	0.444
9.40	14.89	113.8	2.624	1.135	4.708	0.449
9.50	14.73	113.8	2.652	1.138	4.708	0.453
9.60	14.58	113.8	2.679	1.141	4.708	0.458
9.70	14.43	113.8	2.707	1.144	4.708	0.462
9.80	14.28	113.8	2.735	1.147	4.708	0.467
9.90	14.14	113.8	2.762	1.150	4.708	0.471
10.00	14.00	113.8	2.790	1.153	4.708	0.476
10.10	13.86	113.8	2.818	1.156	4.708	0.480
10.20	13.73	113.8	2.845	1.159	4.708	0.484
10.30	13.60	113.8	2.873	1.162	4.708	0.489

edifici: duran2
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 22.586
c= .73 d= 0 f= 0
kn= 4.4 2.1 4.4 5 2.1 1.7 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .1 .1 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 0 0
alfa= .95 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
10.30	13.60	113.8	2.623	1.149	6.505	0.342
Variació a amb b constant						
a= 9.30/ 10.3 / .1						
9.30	13.60	101.9	2.648	1.181	6.505	0.344
9.40	13.60	103.1	2.645	1.177	6.505	0.344
9.50	13.60	104.3	2.643	1.174	6.505	0.344
9.60	13.60	105.5	2.640	1.170	6.505	0.343
9.70	13.60	106.7	2.638	1.167	6.505	0.343
9.80	13.60	107.9	2.635	1.164	6.505	0.343
9.90	13.60	109.1	2.633	1.161	6.505	0.343
10.00	13.60	110.3	2.630	1.158	6.505	0.343
10.10	13.60	111.5	2.628	1.155	6.505	0.343
10.20	13.60	112.6	2.626	1.152	6.505	0.342
10.30	13.60	113.8	2.623	1.149	6.505	0.342
Variació a/b per RT constant						
ratio inicial= .342 desviació= .01						
a= 9.30/ 10.3 / .1	b= 12.6 / 13.6 / .1					
	13.40	100.3	2.691	1.190	6.505	0.349
	13.50	101.1	2.670	1.185	6.505	0.347
	13.60	101.9	2.648	1.181	6.505	0.344
	13.40	101.5	2.689	1.187	6.505	0.349
	13.50	102.3	2.667	1.182	6.505	0.346
	13.60	103.1	2.645	1.177	6.505	0.344
	13.40	102.6	2.686	1.183	6.505	0.349
	13.50	103.5	2.664	1.178	6.505	0.346
	13.60	104.3	2.643	1.174	6.505	0.344
	13.30	102.9	2.705	1.185	6.505	0.351
	13.40	103.8	2.683	1.180	6.505	0.349
	13.50	104.6	2.662	1.175	6.505	0.346
	13.60	105.5	2.640	1.170	6.505	0.343
	13.30	104.1	2.703	1.181	6.505	0.351
	13.40	105.0	2.681	1.177	6.505	0.348
	13.50	105.8	2.659	1.172	6.505	0.346
	13.60	106.7	2.638	1.167	6.505	0.343
	13.30	105.3	2.700	1.178	6.505	0.351
	13.40	106.1	2.678	1.173	6.505	0.348
	13.50	107.0	2.656	1.169	6.505	0.346
	13.60	107.9	2.635	1.164	6.505	0.343
	13.30	106.4	2.698	1.175	6.505	0.351
	13.40	107.3	2.676	1.170	6.505	0.348
	13.50	108.2	2.654	1.166	6.505	0.346
	13.60	109.1	2.633	1.161	6.505	0.343
	13.30	107.6	2.695	1.172	6.505	0.351
	13.40	108.5	2.673	1.167	6.505	0.348
	13.50	109.4	2.652	1.162	6.505	0.345
	13.60	110.3	2.630	1.158	6.505	0.343
	13.30	108.8	2.693	1.169	6.505	0.350
	13.40	109.7	2.671	1.164	6.505	0.348
	13.50	110.6	2.649	1.160	6.505	0.345
	13.60	111.5	2.628	1.155	6.505	0.343
	13.30	109.9	2.691	1.166	6.505	0.350
	13.40	110.8	2.669	1.161	6.505	0.348
	13.50	111.7	2.647	1.157	6.505	0.345
	13.60	112.6	2.626	1.152	6.505	0.342
	13.30	111.1	2.688	1.163	6.505	0.350
	13.40	112.0	2.666	1.158	6.505	0.347
	13.50	112.9	2.645	1.154	6.505	0.345
	13.60	113.8	2.623	1.149	6.505	0.342
Variació a/b per S constant						
a= 9.3 / 10.3 / .1						
9.30	15.05	113.8	2.372	1.121	6.505	0.311
9.40	14.89	113.8	2.397	1.123	6.505	0.314
9.50	14.73	113.8	2.422	1.126	6.505	0.317
9.60	14.58	113.8	2.447	1.129	6.505	0.320
9.70	14.43	113.8	2.473	1.132	6.505	0.323
9.80	14.28	113.8	2.498	1.134	6.505	0.326
9.90	14.14	113.8	2.523	1.137	6.505	0.330
10.00	14.00	113.8	2.548	1.140	6.505	0.333
10.10	13.86	113.8	2.574	1.143	6.505	0.336
10.20	13.73	113.8	2.599	1.146	6.505	0.339
10.30	13.60	113.8	2.624	1.149	6.505	0.342

edifici: bio duran2
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 27.442
c= .71 d= 0 f= 0
kn= 4.4 2.1 4.4 5 .46 1.7 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .1 .1 .1 .2 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
10.30	13.60	113.8	2.141	1.004	7.903	0.240

edifici: bio duran2
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 4.928
c= .187 d= 0 f= 0
kn= 4.4 .46 4.4 5 .46 1.7 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .2 .1 .1 .2 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 0 0 0
alfa= .8 0 0 0

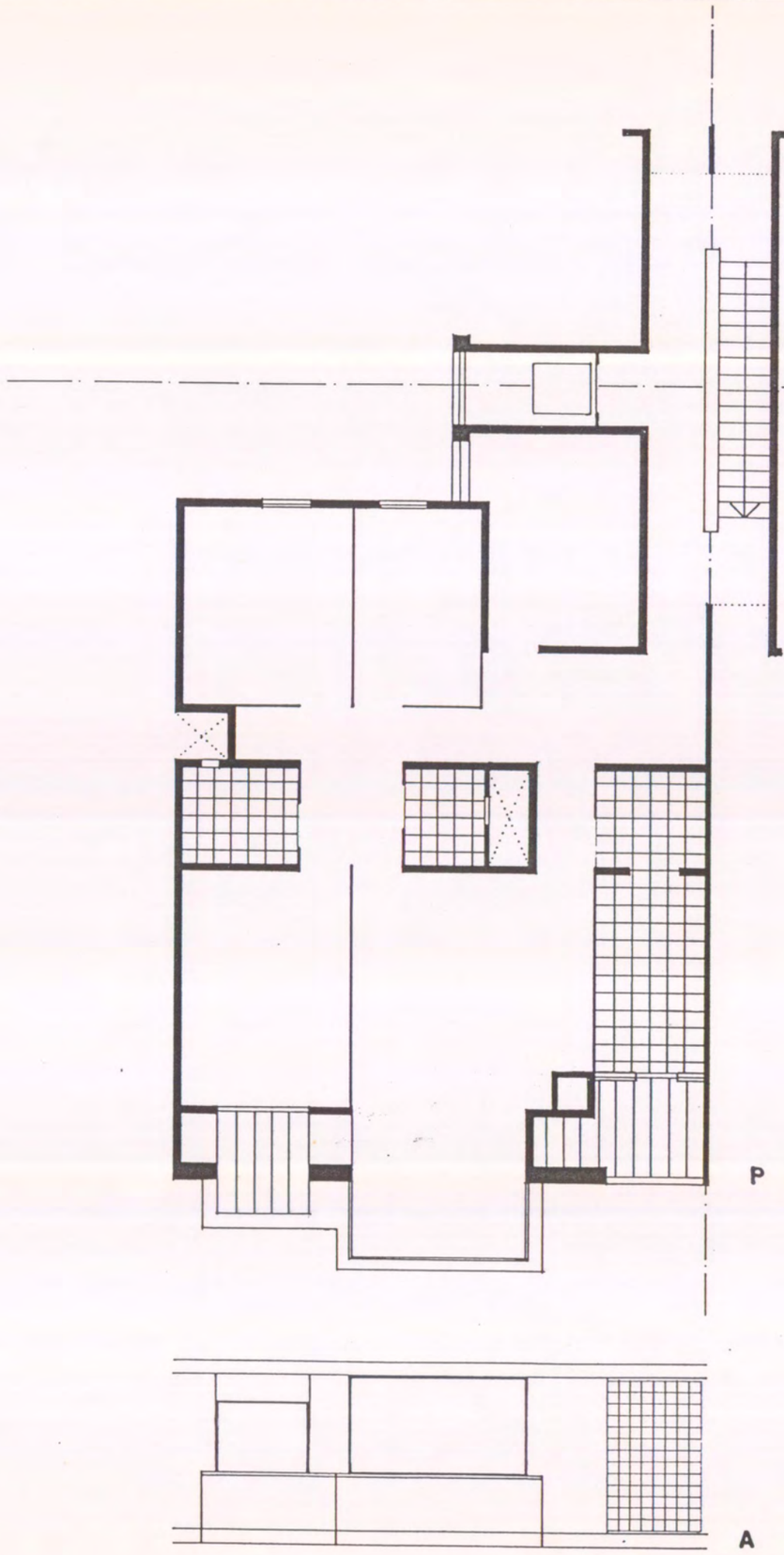
a	b	S	I	Gt	Gv	R.T.
Edifici original						
10.30	13.60	113.8	1.753	0.897	1.419	0.756
Variació a amb b constant						

edifici: bio duran2
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 16.347
c= .84 d= 0 f= 0
kn= 4.4 .46 4.4 5 .46 1.7 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .2 .1 .1 .2 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
10.30	13.60	113.8	3.822	0.929	4.708	0.589

edifici: bio duran2
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 22.586
c= .73 d= 0 f= 0
kn= 4.4 2.1 4.4 5 .46 1.7 1.6 1.7 1.34 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .1 .1 .1 .2 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 0 0
alfa= .95 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
10.30	13.60	113.8	2.649	1.017	6.505	0.352



2.I.D.6

VIV. C/ LEPANTO (B)

LL. NADAL

DATOS GEOMETRICOS

a = 8,90 m	(8,90/9,4= m)
b = 13,40 m	(13,40/12,40 m)
S = 100,16 m²	V = 300,47 m3
Si/S = 0,12	Sit/Sio = 2,91

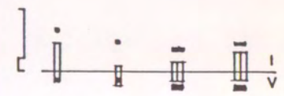
RATIOS TERMICOS (°C)

	sin aislar	aislado
invierno		
S	2,36	2,45
N	0,48	0,46
E	0,92	0,92
W	0,92	0,92
NE	1,51	1,58
SW	1,51	1,58
verano		
S	0,59	0,57
N	1,11	0,55
E	0,94	1,11
W	0,94	1,11
SE	0,79	0,82
SW	0,79	0,82

MASA TERMICA (kcal/°C m3)

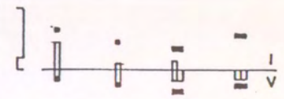
26,35	27,39

RT CON

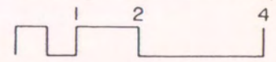


s n e.w se.sw

RT SIN



s n e.w se.sw



BARCELONA 85-88

E.T.S.A.B. U.P.C.

TESIS DOCTORAL · BIOCLIMATISMO Y TIPO ARQUITECTONICO EN CATALUÑA EN EL PERIODO 1930 1985 · VICTOR SEGUI SANTANA

	VIVIENDAS C/ LEPANTO (B) LL NADAL.	21DG

CAPTORES TRANSPARENTES	1	V. SUR 1	S	0.3635A
			t	0.7
			CR	CR1
	2	V. SUR 2	S	0.33AC
			t	0.7
			CR	CR1
	3	V. PATIO 1	S	0.2517A
			t	0.7
			CR	PATIO
	4	V. PATIO 2	S	0.099B
			t	0.7
			CR	PATIO
	5	V. ESTE	S	0.051B
			t	0.7
			CR	CR4
	6	V. OESTE	S	0.051B
			t	0.7
			CR	CR4
CAPTORES OPACOS	1	P. SUR	S	0.346A
			CK	CK3
			a	0.6
			CR	CR1
	2	P ESTE	S	0.05B
			CK	CK8
			a	0.6
			CR	CR3
	3	P. OESTE	S	0.05B
			CK	CK10
			a	0.6
			CR	CR4
	4		S	
			CK	
			a	
			CR	
	5		S	
			CK	
			a	
			CR	
	6		S	
			CK	
			a	
			CR	
	7		S	
			CK	
			a	
			CR	
	8		S	
			CK	
			a	
			CR	
	9		S	
			CK	
			a	
			CR	
CUBIERTA	1		S	
			CK	
			a	

TRANSMISION FACHADAS	1	V. SUR 1	S	0.796A
			K	K1
			K	X1
	2	V. SUR 2	S	0.33A
			K	K2
			K	X1
	3	P. SUR 1	S	0.346A
			K	K3
			K	X1
	4	P SUR 2	S	0.892A
			K	K4
			K	X1
	5	V. PATIO $^{1}_{2}$	S	0.215A / 0.099B
			K	K5 / K5
			K	PATIO / PATIO
	6	P. PATIO $^{1}_{2}$	S	1128A / 0.293B
			K	K6 / K6
			K	PATIO / PATIO
	7	V. ESTE	S	0.051B
			K	K7
			K	X3
	8	P. ESTE	S	0.05B
			K	K8
			K	X3
	9	V. OESTE	S	0.05B
			K	K9
			K	X4
	10	P. OESTE	S	0.05B
			K	K10
			K	X4
	11		S	
			K	
			K	
	12		S	
			K	
			K	
	13		S	
			K	
			K	
	14		S	
			K	
			K	
	15		S	
			K	
			K	
	16		S	
			K	
			K	

INFILTRACIONES			S	16.64
			R	0.664
SEPARACION TERRENO	1		S	
			K	
	2		S	
			K	
SEPARACION OTROS LOCALES	1	MEDIAN 1	S	1.974B
			K	K11
	2	MEDIAN 2	S	1.642B
			K	K12
	3	PUERTA	S	1.68
			K	K13
	4	MEDIANJ	S	1.02
			K	K11
	5	FORJADOS	S	1.6796AB
			K	K14
TRANSMISION PIEL HORIZONT. CUBIERTA	1		S	
			K	
	2		S	
			K	

SUPERFICIE EN PLANTA	(0.839837AB)

VIVIENDAS C/ LEPANTO (B). LL NADAL

21DG

VARIABLES GEOMETRICAS	A	B	Amin.	Amax.	I	Bmin.	Bmax.	I	DESVIACION	B para S Cte.	VOLUMEN	SUPERFICIE
	8.9	13.4	8.9	9.4	01	12.4	13.4	0.2	0.01	119.26/A=B	300.47	100.159

R=2800	INVIERNO	K_1	K_2	K_3	K_4	K_5	K_6	K_7	K_8	K_9	K_{10}	K_{11}	K_{12}	K_{13}	K_{14}	K_{15}	K_{16}	K_{17}	K_{18}	VERANO	R=2050
		5	4.4	1.25	2.1	4.4	2.1	5	4.25	5	1.25	1.7	1.21	1.6	1.34						

O	RH	COEFICIENTES								COEFICIENTES DE TRANSMISION K																		COEFICIENTES								RH	O
S	0.664	CR_1	1	CR_2		CR_3	0.3977	CR_4	0.3977	K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	1.345	CR_4	1.345	CR_3		CR_2	1	CR_1		S
		K_1	0.8	K_2		K_3		K_4																				1	K_4	1	K_3		K_2	0.9	K_1		
		C	1	D		F		G		5	4.4	1.25	2.1	4.4	0.46	5	0.4	5	0.4	1.7	1.21	1.6	1.34						G		F		D	1	C	11.274	
N	0.664	CR_1	0.137	CR_2		CR_3	0.3977	CR_4	0.3977	K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	1.345	CR_4	1.345	CR_3		CR_2	0.756	CR_1		N
		K_1	1.2	K_2		K_3		K_4																				1	K_4	1	K_3		K_2	0.8	K_1		
		C	1	D		F		G		5	4.4	0.4	0.46	4.4	0.46	5	0.4	5	0.4	1.7	1.21	1.6	1.34						G		F		D	0.187	C	2.024	
E	0.664	CR_1	0.3977	CR_2		CR_3	0.137	CR_4	1	K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	1	CR_4	0.756	CR_3		CR_2	1.345	CR_1		E
		K_1	1	K_2		K_3	1.2	K_4	0.8																			0.9	K_4	0.8	K_3		K_2	1	K_1		
		C	0.238	D		F		G		5	4.4	0.4	0.46	4.4	0.46	5	0.4	5	1.25	1.7	1.21	1.6	1.34						G		F		D	0.705	C	6.715	
W	0.664	CR_1	0.3977	CR_2		CR_3	1	CR_4	0.137	K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	0.756	CR_4	1	CR_3		CR_2	1.345	CR_1		W
		K_1	1	K_2		K_3	0.8	K_4	1.2																			0.8	K_4	0.9	K_3		K_2	1	K_1		
		C	0.238	D		F		G		〃	〃	〃	〃	〃	〃	〃	1.25	〃	0.4	〃	〃	〃	〃						G		F		D	0.705	C	6.715	
SE	0.664	CR_1	0.768	CR_2		CR_3	0.1578	CR_4	0.768	K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	1.2469	CR_4	1.07458	CR_3		CR_2	1.2469	CR_1		SE
		K_1	0.9	K_2		K_3	0.9	K_4	1.1																			0.95	K_4	0.9	K_3		K_2	0.95	K_1		
		C	0.305	D		F		G		5	4.4	1.25	2.1	4.4	0.46	5	0.4	5	1.25	1.7	1.21	1.6	1.34						G		F		D	0.98	C	9.279	
SW	0.664	CR_1	0.768	CR_2		CR_3	0.768	CR_4	0.1578	K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	1.07458	CR_4	1.2469	CR_3		CR_2	1.2469	CR_1		SW
		K_1	0.9	K_2		K_3	1.1	K_4	0.9																			0.9	K_4	0.9	K_3		K_2	0.95	K_1		
		C	0.305	D		F		G		〃	〃	〃	〃	〃	〃	〃	1.25	〃	0.4	〃	〃	〃	〃						G		F		D	0.98	C	9.279	

```
44 REM *************** ESQUELET DE L'EDIFICI nadal                    ****************
45 REM
50 DO=CR1*(.5635*A*.7+.33*A*C*.7)                    'façana 1 - Capt.transp.
Ri*s*t
52 DA=CR2* 0                          'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*.051*B*.7                     'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4* .051*B*.7                  'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*(.2517*A*.7+.099*B*.7)                        'patis    - Capt.transp.
i*s*t
60 DP=CR1* .346*A*CK3*.6          'façana 1 - Capt.opacs  CRi*s*abs*ckn
62 DD=CR2*0                        'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3* .05*B*CK8*.6            'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*.05*B*CK10*.6            'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*  0                      'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=.52*0                        'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=(.839837*A*B)                 'superfície en planta   funció a i b
74 DU=A1*(.796*A*K1+.33*A*K2+.346*A*K3+.892*A*K4)              'façana 1 - Tran
issió  ai*s*kn
76 DK=A2*0                         'façana 2 - Transmissió  ai*s*kn
78 DL=A3*(.051*B*K7+.05*B*K8)                    'façana 3 - Transmissió  ai*s*k
80 DM=A4*(.05*B*K9+.05*B*K10)                      'façana 4 - Transmissió  ai
*kn
82 DH=.8*(.2517*A*K5+.099*B*K5+1.128*A*K6+.2936*B*K6)     'patis    - Transmis
ó  ai*s*kn
84 DV= 0                           'terra    - Transmissió  s*kn
86 DW= 1.974*B*K11+1.642*B*K12+1.68*K13+1.02*K11+1.6796*A*B*K14
     'locals   - Transmissió  s*kn
88 DX=0                            'coberta  - Transmissió  s*kn
89 RETURN
90 B=119.26/A                      'valor b per S constant   (funció de a)
```

variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= .664
c= 1 d= 0 f= 0
kn= 5 4.4 1.25 2.1 4.4 2.1 5 1.25 5 1.25 1.7 1.21 1.6 1.34 0 0
0 0 0 0
ckn= .1 .1 .6 .1 .1 .1 .1 .6 .1 .6 .6 .6 .6 .6 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 .3977 .3977
alfa= .8 0 1 1

a	b	S	I	Gt	Gv	R.T.
Edifici original						
8.90	13.40	100.2	2.862	1.019	0.191	2.364
Variació a amb b constant						
a= 8.90/ 9.399999 / .1						
8.90	13.40	100.2	2.862	1.019	0.191	2.364
9.00	13.40	101.3	2.860	1.017	0.191	2.367
9.10	13.40	102.4	2.857	1.014	0.191	2.369
9.20	13.40	103.5	2.855	1.012	0.191	2.372
9.30	13.40	104.7	2.852	1.010	0.191	2.374
9.40	13.40	105.8	2.850	1.008	0.191	2.377
Variació a/b per RT constant						
ratio inicial= 2.364 desviació= .01						
a= 8.90/ 9.399999 / .1	b= 12.4 / 13.4 / .2					
	13.40	100.2	2.862	1.019	0.191	2.364
	13.40	101.3	2.860	1.017	0.191	2.367
	13.40	102.4	2.857	1.014	0.191	2.369
	13.40	103.5	2.855	1.012	0.191	2.372
Variació a/b per S constant						
a= 8.899999 / 9.399999 / .1						
8.90	13.40	100.2	2.862	1.019	0.191	2.364
9.00	13.25	100.2	2.889	1.020	0.191	2.385
9.10	13.11	100.2	2.916	1.021	0.191	2.406
9.20	12.96	100.2	2.943	1.021	0.191	2.427
9.30	12.82	100.2	2.970	1.022	0.191	2.447
9.40	12.69	100.2	2.997	1.023	0.191	2.468

edifici: nadall
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= .664
c= 1 d= 0 f= 0
kn= 5 4.4 1.25 2.1 4.4 2.1 5 1.25 5 1.25 1.7 1.21 1.6 1.34 0 0
0 0 0 0
ckn= .1 .1 .6 .1 .1 .1 .1 .6 .1 .6 .6 .6 .6 .6 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 0 .3977 .3977
alfa= 1.2 0 1 1

a	b	S	I	Gt	Gv	R.T.
Edifici original						
8.90	13.40	100.2	0.626	1.111	0.191	0.480
Variació a amb b constant						
a= 8.90/ 9.399999 / .1						
8.90	13.40	100.2	0.626	1.111	0.191	0.480
9.00	13.40	101.3	0.623	1.108	0.191	0.479
9.10	13.40	102.4	0.620	1.106	0.191	0.478
9.20	13.40	103.5	0.618	1.104	0.191	0.477
9.30	13.40	104.7	0.615	1.101	0.191	0.476
9.40	13.40	105.8	0.613	1.099	0.191	0.475
Variació a/b per RT constant						
ratio inicial= .48 desviació= .01						
a= 8.90/ 9.399999 / .1	b= 12.4 / 13.4 / .2					
	12.80	95.7	0.644	1.128	0.191	0.488
	13.00	97.2	0.638	1.122	0.191	0.485
	13.20	98.7	0.632	1.116	0.191	0.483
	13.40	100.2	0.626	1.111	0.191	0.480
	12.60	95.2	0.648	1.132	0.191	0.489
	12.80	96.7	0.641	1.126	0.191	0.486
	13.00	98.3	0.635	1.120	0.191	0.484
	13.20	99.8	0.629	1.114	0.191	0.481
	13.40	101.3	0.623	1.108	0.191	0.479
	12.60	96.3	0.645	1.129	0.191	0.488
	12.80	97.8	0.639	1.123	0.191	0.485
	13.00	99.4	0.632	1.117	0.191	0.483
	13.20	100.9	0.626	1.112	0.191	0.480
	13.40	102.4	0.620	1.106	0.191	0.478
	12.60	97.4	0.642	1.127	0.191	0.487
	12.80	98.9	0.636	1.121	0.191	0.484
	13.00	100.4	0.630	1.115	0.191	0.482
	13.20	102.0	0.624	1.109	0.191	0.479
	13.40	103.5	0.618	1.104	0.191	0.477
	12.40	96.9	0.647	1.131	0.191	0.488
	12.60	98.4	0.640	1.125	0.191	0.486
	12.80	100.0	0.634	1.119	0.191	0.483
	13.00	101.5	0.627	1.113	0.191	0.481
	13.20	103.1	0.621	1.107	0.191	0.478
	13.40	104.7	0.615	1.101	0.191	0.476
	12.40	97.9	0.644	1.129	0.191	0.487
	12.60	99.5	0.637	1.122	0.191	0.485
	12.80	101.0	0.631	1.116	0.191	0.482
	13.00	102.6	0.625	1.110	0.191	0.480
	13.20	104.2	0.619	1.105	0.191	0.477
	13.40	105.8	0.613	1.099	0.191	0.475
Variació a/b per S constant						
a= 8.899999 / 9.399999 / .1						
8.90	13.40	100.2	0.626	1.111	0.191	0.480
9.00	13.25	100.2	0.627	1.112	0.191	0.481
9.10	13.11	100.2	0.629	1.114	0.191	0.481
9.20	12.96	100.2	0.631	1.116	0.191	0.482
9.30	12.82	100.2	0.633	1.118	0.191	0.483
9.40	12.69	100.2	0.635	1.120	0.191	0.484

edifici: nadall
variant 3 orientació principal=este HIVERN
Rv= 2800 D= 0 rh= .664
c= .238 d= 0 f= 0
kn= 5 4.4 1.25 2.1 4.4 2.1 5 1.25 5 1.25 1.7 1.21 1.6 1.34 0
0 0 0 0
ckn= .1 .1 .6 .1 .1 .1 .1 .6 .1 .6 .6 .6 .6 .6 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 .137 1
alfa= 1 0 1.2 .8

a	b	S	I	Gt	Gv	R.T.
Edifici original						
8.90	13.40	100.2	1.155	1.065	0.191	0.919
Variació a amb b constant						
a= 8.90/ 9.399999 / .1						
8.90	13.40	100.2	1.155	1.065	0.191	0.919
9.00	13.40	101.3	1.151	1.063	0.191	0.918
9.10	13.40	102.4	1.148	1.060	0.191	0.917
9.20	13.40	103.5	1.144	1.058	0.191	0.915
9.30	13.40	104.7	1.141	1.056	0.191	0.914
9.40	13.40	105.8	1.137	1.053	0.191	0.913

Variació a/b per RT constant
ratio inicial= .919 desviació= .01
a= 8.90/ 9.399999 / .1 b= 12.4 / 13.4 / .2

13.20	98.7	1.167	1.070	0.191	0.925
13.40	100.2	1.155	1.065	0.191	0.919
13.20	99.8	1.164	1.067	0.191	0.924
13.40	101.3	1.151	1.063	0.191	0.918
13.20	100.9	1.160	1.065	0.191	0.923
13.40	102.4	1.148	1.060	0.191	0.917
13.00	100.4	1.169	1.068	0.191	0.928
13.20	102.0	1.156	1.063	0.191	0.922
13.40	103.5	1.144	1.058	0.191	0.915
13.00	101.5	1.166	1.065	0.191	0.927
13.20	103.1	1.153	1.060	0.191	0.921
13.40	104.7	1.141	1.056	0.191	0.914
13.00	102.6	1.162	1.063	0.191	0.926
13.20	104.2	1.150	1.058	0.191	0.919
13.40	105.8	1.137	1.053	0.191	0.913

Variació a/b per S constant
a= 8.899999 / 9.399999 / .1

8.90	13.40	100.2	1.155	1.065	0.191	0.919
9.00	13.25	100.2	1.160	1.066	0.191	0.922
9.10	13.11	100.2	1.166	1.067	0.191	0.926
9.20	12.96	100.2	1.172	1.069	0.191	0.929
9.30	12.82	100.2	1.177	1.070	0.191	0.933
9.40	12.69	100.2	1.183	1.071	0.191	0.937

edifici: nadall
variant 4 orientació principal=oeste HIVERN
Rv= 2800 D= 0 rh= .664
c= .238 d= 0 f= 0
kn= 5 4.4 1.25 2.1 4.4 2.1 5 1.25 5 1.25 1.7 1.21 1.6 1.34 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .1 .1 .6 .1 .6 .6 .6 .6 .6 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 1 .137
alfa= 1 0 .8 1.2

a	b	S	I	Gt	Gv	R.T.
Edifici original						
8.90	13.40	100.2	1.155	1.065	0.191	0.919
Variació a amb b constant						
8.90	13.40	100.2	1.155	1.065	0.191	0.919
9.00	13.40	101.3	1.151	1.062	0.191	0.918
9.10	13.40	102.4	1.148	1.060	0.191	0.917
9.20	13.40	103.5	1.144	1.058	0.191	0.915
9.30	13.40	104.7	1.141	1.056	0.191	0.914
9.40	13.40	105.8	1.137	1.053	0.191	0.913
Variació a/b per RT constant						
ratio inicial= .919 desviació= .01						
a= 8.90/ 9.399999 / .1	b= 12.4 / 13.4 / .2					
13.20	98.7	1.167	1.070	0.191	0.925	
13.40	100.2	1.155	1.065	0.191	0.919	
13.20	99.8	1.164	1.067	0.191	0.924	
13.40	101.3	1.151	1.062	0.191	0.918	
13.20	100.9	1.160	1.065	0.191	0.923	
13.40	102.4	1.148	1.060	0.191	0.917	
13.00	100.4	1.169	1.068	0.191	0.928	
13.20	102.0	1.156	1.063	0.191	0.922	
13.40	103.5	1.144	1.058	0.191	0.915	
13.00	101.5	1.166	1.065	0.191	0.927	
13.20	103.1	1.153	1.060	0.191	0.921	
13.40	104.7	1.141	1.056	0.191	0.914	
13.00	102.6	1.162	1.063	0.191	0.926	
13.20	104.2	1.150	1.058	0.191	0.920	
13.40	105.8	1.137	1.053	0.191	0.913	
Variació a/b per S constant						
a= 8.899999 / 9.399999 / .1						
8.90	13.40	100.2	1.155	1.065	0.191	0.919
9.00	13.25	100.2	1.160	1.066	0.191	0.922
9.10	13.11	100.2	1.166	1.067	0.191	0.926
9.20	12.96	100.2	1.172	1.069	0.191	0.929
9.30	12.82	100.2	1.177	1.070	0.191	0.933
9.40	12.69	100.2	1.183	1.071	0.191	0.937
edifici: nadall						
variant 5 orientació principal=sureste HIVERN						
Rv= 2800 D= 0 rh= .664						
c= .305 d= 0 f= 0						
kn= 5 4.4 1.25 2.1 4.4 2.1 5 1.25 5 1.25 1.7 1.21 1.6 1.34 0 0 0 0 0						
ckn= .1 .1 .6 .1 .1 .1 .1 .6 .1 .6 .6 .6 .6 .6 0 0 0 0 0						
en= 0 0 0 0 0 0 0 0 0 0						
Cr= .768 0 .1578 .768						
alfa= .9 0 .9 1.1						
Edifici original						
8.90	13.40	100.2	1.872	1.042	0.191	1.517
Variació a amb b constant						
a= 8.90/ 9.399999 / .1						
8.90	13.40	100.2	1.872	1.042	0.191	1.517
9.00	13.40	101.3	1.868	1.040	0.191	1.518
9.10	13.40	102.4	1.865	1.037	0.191	1.518
9.20	13.40	103.5	1.862	1.035	0.191	1.518
9.30	13.40	104.7	1.860	1.033	0.191	1.519
9.40	13.40	105.8	1.857	1.030	0.191	1.519
Variació a/b per RT constant						
ratio inicial= 1.517 desviació= .01						
a= 8.90/ 9.399999 / .1	b= 12.4 / 13.4 / .2					
13.40	100.2	1.872	1.042	0.191	1.517	
13.40	101.3	1.868	1.040	0.191	1.518	
13.40	102.4	1.865	1.037	0.191	1.518	
13.40	103.5	1.862	1.035	0.191	1.518	
13.40	104.7	1.860	1.033	0.191	1.519	
13.40	105.8	1.857	1.030	0.191	1.519	
Variació a/b per S constant						
a= 8.899999 / 9.399999 / .1						
8.90	13.40	100.2	1.872	1.042	0.191	1.517
9.00	13.25	100.2	1.886	1.043	0.191	1.528
9.10	13.11	100.2	1.901	1.044	0.191	1.539
9.20	12.96	100.2	1.916	1.045	0.191	1.550
9.30	12.82	100.2	1.931	1.046	0.191	1.560
9.40	12.69	100.2	1.946	1.047	0.191	1.571
edifici: nadall						
variant 6 orientació principal=suroeste HIVERN						
Rv= 2800 D= 0 rh= .664						
c= .305 d= 0 f= 0						
kn= 5 4.4 1.25 2.1 4.4 2.1 5 1.25 5 1.25 1.7 1.21 1.6 1.34 0 0 0 0 0						
ckn= .1 .1 .6 .1 .1 .1 .1 .6 .1 .6 .6 .6 .6 .6 0 0 0 0 0						
en= 0 0 0 0 0 0 0 0 0 0						
Cr= .768 0 .768 .1578						
alfa= .9 0 1.1 .9						

a	b	S	I	Gt	Gv	R.T.
Edifici original						
8.90	13.40	100.2	1.872	1.042	0.191	1.517
Variació a amb b constant						
a= 8.90/ 9.399999 / .1						
8.90	13.40	100.2	1.872	1.042	0.191	1.517
9.00	13.40	101.3	1.868	1.040	0.191	1.517
9.10	13.40	102.4	1.865	1.037	0.191	1.518
9.20	13.40	103.5	1.862	1.035	0.191	1.518
9.30	13.40	104.7	1.860	1.033	0.191	1.519
9.40	13.40	105.8	1.857	1.030	0.191	1.519
Variació a/b per RT constant						
ratio inicial= 1.517 desviació= .01						
a= 8.90/ 9.399999 / .1	b= 12.4 / 13.4 / .2					
	13.40	100.2	1.872	1.042	0.191	1.517
	13.40	101.3	1.868	1.040	0.191	1.517
	13.40	102.4	1.865	1.037	0.191	1.518
	13.40	103.5	1.862	1.035	0.191	1.518
	13.40	104.7	1.860	1.033	0.191	1.519
	13.40	105.8	1.857	1.030	0.191	1.519
Variació a/b per S constant						
a= 8.899999 / 9.399999 / .1						
8.90	13.40	100.2	1.872	1.042	0.191	1.517
9.00	13.25	100.2	1.886	1.043	0.191	1.528
9.10	13.11	100.2	1.901	1.044	0.191	1.539
9.20	12.96	100.2	1.916	1.045	0.191	1.550
9.30	12.82	100.2	1.931	1.046	0.191	1.560
9.40	12.69	100.2	1.946	1.047	0.191	1.571

edifici: bionadall
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= .664
c= 1 d= 0 f= 0
kn= 5 4.4 1.25 2.1 4.4 .46 5 .4 5 .4 1.7 1.21 1.6 1.34 0 0 0
0 0 0
ckn= .1 .1 .6 .1 .1 .2 .1 .2 .1 .2 .6 .6 .6 .6 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 .3977 .3977
alfa= .8 0 1 1

a	b	S	I	Gt	Gv	R.T.
Edifici original						
8.90	13.40	100.2	2.813	0.954	0.191	2.455

edifici: bionadall
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= .664
c= 1 d= 0 f= 0
kn= 5 4.4 .4 .46 4.4 .46 5 .4 5 .4 1.7 1.21 1.6 1.34 0 0 0 0
0 0
ckn= .1 .1 .2 .2 .1 .2 .1 .2 .1 .2 .6 .6 .6 .6 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 0 .3977 .3977
alfa= 1.2 0 1 1

a	b	S	I	Gt	Gv	R.T.
Edifici original						
8.90	13.40	100.2	0.537	0.984	0.191	0.456

edifici: bionadall
variant 3 orientació principal=este HIVERN
Rv= 2800 D= 0 rh= .664
c= .238 d= 0 f= 0
kn= 5 4.4 .4 .46 4.4 .46 5 .4 5 1.25 1.7 1.21 1.6 1.34 0 0 0
0 0 0
ckn= .1 .1 .2 .2 .1 .2 .1 .2 .1 .6 .6 .6 .6 .6 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 .137 1
alfa= 1 0 1.2 .8

a	b	S	I	Gt	Gv	R.T.
Edifici original						
8.90	13.40	100.2	1.032	0.950	0.191	0.904

edifici: bionadall
variant 4 orientació principal=oeste HIVERN
Rv= 2800 D= 0 rh= .664
c= .238 d= 0 f= 0
kn= 5 4.4 .4 .46 4.4 .46 5 1.25 5 .4 1.7 1.21 1.6 1.34 0 0 0
0 0 0
ckn= .1 .1 .2 .2 .1 .2 .1 .6 .1 .2 .6 .6 .6 .6 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 1 .137
alfa= 1 0 .8 1.2

a	b	S	I	Gt	Gv	R.T.
Edifici original						
8.90	13.40	100.2	1.032	0.950	0.191	0.904

edifici: bionadall
variant 4 orientació principal=sureste HIVERN
Rv= 2800 D= 0 rh= .664
c= .305 d= 0 f= 0
kn= 5 4.4 1.25 2.1 4.4 .46 5 .4 5 1.25 1.7 1.21 1.6 1.34 0
0 0 0
ckn= .1 .1 .6 .1 .1 .2 .1 .2 .1 .6 .6 .6 .6 .6 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 .768 .1578
alfa= .9 0 .9 1.1

a	b	S	I	Gt	Gv	R.T.
Edifici original						
8.90	13.40	100.2	1.824	0.979	0.191	1.557

edifici: bionadall
variant 6 orientació principal=suroeste HIVERN
Rv= 2800 D= 0 rh= .664
c= .305 d= 0 f= 0
kn= 5 4.4 1.25 2.1 4.4 .46 5 1.25 5 .4 1.7 1.21 1.6 1.34 0
0 0 0
ckn= .1 .1 .6 .1 .1 .2 .1 .6 .1 .2 .6 .6 .6 .6 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 .768 .1578
alfa= .9 0 1.1 .9

a	b	S	I	Gt	Gv	R.T.
Edifici original						
8.90	13.40	100.2	1.862	0.979	0.191	1.590

```
44 REM *************** ESQUELET DE L'EDIFICI:nadalL ***********
45 REM
50 DO=CR1*(.5635*A*.7+.33*A*C*.7)                    'façana 1 - Capt.transp
Ri*s*t
52 DA=CR2* 0                                  'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*.051*B*.7                             'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4* .051*B*.7                          'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*(.2517*A*.7+.099*B*.7)                          'patis    - Capt.transp.
i*s*t
60 DP=CR1* .346*A*CK3*.6                  'façana 1 - Capt.opacs  CRi*s*abs*ckn
62 DD=CR2*0                               'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3* .05*B*CK8*.6                   'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*.05*B*CK10*.6                   'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*  0                             'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=2.4*0                               'coberta  - Capt.opacs  CRi*s*abs*ckn2.4
72 DQ=(.839837*A*B)                        'superfície en planta   funció a i b
74 DU=A1*(.796*A*K1+.33*A*K2+.346*A*K3+.892*A*K4)                 'façana 1 - Tra
issió  ai*s*kn
76 DK=A2*0                                'façana 2 - Transmissió  ai*s*kn
78 DL=A3*(.051*B*K7+.05*B*K8)                          'façana 3 - Transmissió  ai*s*
80 DM=A4*(.05*B*K9+.05*B*K10)                           'façana 4 - Transmissió  ai
*kn
82 DH=.8*(.2517*A*K5+.099*B*K5+1.128*A*K6+.2936*B*K6)     'patis    - Transmis
ó  ai*s*kn
84 DV= 0                                  'terra    - Transmissió  s*kn
86 DW= 1.974*B*K11+1.642*B*K12+1.68*K13+1.02*K11+1.6796*A*B*K14
    'locals   - Transmissió  s*kn
88 DX=0                                   'coberta  - Transmissió  s*kn
89 RETURN
90 B=119.26/A                             'valor b per S constant   (funció de a)
```

edifici: nadall
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 11.274
c= 1 d= 0 f= 0
kn= 5 4.4 1.25 2.1 4.4 2.1 5 1.25 5 1.25 1.7 1.21 1.6 1.34 0 0
0 0 0 0
ckn= .1 .1 .6 .1 .1 .1 .1 .6 .1 .6 .6 .6 .6 .6 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 1.345 1.345
alfa= .9 0 1 1

a	b	S	I	Gt	Gv	R.T.
Edifici original						
8.90	13.40	100.2	2.483	0.927	3.247	0.594
Variació a amb b constant						
a= 8.90/ 9.399999 / .1						
8.90	13.40	100.2	2.483	0.927	3.247	0.594
9.00	13.40	101.3	2.477	0.925	3.247	0.593
9.10	13.40	102.4	2.471	0.923	3.247	0.592
9.20	13.40	103.5	2.465	0.921	3.247	0.591
9.30	13.40	104.7	2.459	0.919	3.247	0.590
9.40	13.40	105.8	2.453	0.917	3.247	0.589
Variació a/b per RT constant						
ratio inicial= .594 desviació= .01						
a= 8.90/ 9.399999 / .1	b= 12.4 / 13.4 / .2					
13.20	98.7	2.512	0.932	3.247	0.601	
13.40	100.2	2.483	0.927	3.247	0.594	
13.20	99.8	2.506	0.930	3.247	0.600	
13.40	101.3	2.477	0.925	3.247	0.593	
13.20	100.9	2.500	0.928	3.247	0.598	
13.40	102.4	2.471	0.923	3.247	0.592	
13.20	102.0	2.494	0.926	3.247	0.597	
13.40	103.5	2.465	0.921	3.247	0.591	
13.00	101.5	2.518	0.928	3.247	0.603	
13.20	103.1	2.488	0.924	3.247	0.596	
13.40	104.7	2.459	0.919	3.247	0.590	
13.00	102.6	2.512	0.926	3.247	0.602	
13.20	104.2	2.482	0.922	3.247	0.595	
13.40	105.8	2.453	0.917	3.247	0.589	
Variació a/b per S constant						
a= 8.899999 / 9.399999 / .1						
8.90	13.40	100.2	2.483	0.927	3.247	0.594
9.00	13.25	100.2	2.499	0.929	3.247	0.598
9.10	13.11	100.2	2.514	0.930	3.247	0.601
9.20	12.96	100.2	2.530	0.931	3.247	0.605
9.30	12.82	100.2	2.545	0.932	3.247	0.609
9.40	12.69	100.2	2.561	0.934	3.247	0.612

edifici: nadall
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 2.024
c= .187 d= 0 f= 0
kn= 5 4.4 1.25 2.1 4.4 2.1 5 1.25 5 1.25 1.7 1.21 1.5 1.34 0 0
0 0 0 0
ckn= .1 .1 .6 .1 .1 .1 .1 .6 .1 .6 .6 .6 .6 .6 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 0 1.345 1.345
alfa= .8 0 1 1

a	b	S	I	Gt	Gv	R.T.
Edifici original						
8.90	13.40	100.2	1.661	0.904	0.583	1.116
Variació a amb b constant						
a= 8.90/ 9.399999 / .1						
8.90	13.40	100.2	1.661	0.904	0.583	1.116
9.00	13.40	101.3	1.655	0.902	0.583	1.114
9.10	13.40	102.4	1.649	0.900	0.583	1.111
9.20	13.40	103.5	1.643	0.898	0.583	1.109
9.30	13.40	104.7	1.637	0.896	0.583	1.106
9.40	13.40	105.8	1.631	0.894	0.583	1.104
Variació a/b per RT constant						
ratio inicial= 1.116 desviació= .01						
a= 8.90/ 9.399999 / .1	b= 12.4 / 13.4 / .2					
13.20	98.7	1.678	0.908	0.583	1.125	
13.40	100.2	1.661	0.904	0.583	1.116	
13.20	99.8	1.671	0.906	0.583	1.122	
13.40	101.3	1.655	0.902	0.583	1.114	
13.20	100.9	1.665	0.904	0.583	1.119	
13.40	102.4	1.649	0.900	0.583	1.111	
13.00	100.4	1.676	0.906	0.583	1.125	
13.20	102.0	1.659	0.902	0.583	1.117	
13.40	103.5	1.643	0.898	0.583	1.109	
13.00	101.5	1.671	0.904	0.583	1.123	
13.20	103.1	1.653	0.900	0.583	1.114	
13.00	102.6	1.665	0.902	0.583	1.120	
13.20	104.2	1.648	0.898	0.583	1.112	
Variació a/b per S constant						
a= 8.899999 / 9.399999 / .1						
8.90	13.40	100.2	1.661	0.904	0.583	1.116
9.00	13.25	100.2	1.667	0.905	0.583	1.120
9.10	13.11	100.2	1.673	0.906	0.583	1.123
9.20	12.96	100.2	1.680	0.907	0.583	1.127
9.30	12.82	100.2	1.686	0.908	0.583	1.130
9.40	12.69	100.2	1.693	0.909	0.583	1.134

edifici: nadall
variant 3 orientació principal=este ESTIU
Rv= 2050 D= 0 rh= 6.715
c= .705 d= 0 f= 0
kn= 5 4.4 1.25 2.1 4.4 2.1 5 1.25 5 1.25 1.7 1.21 1.5 1.34 0
0 0 0 0
ckn= .1 .1 .6 .1 .1 .1 .1 .6 .1 .6 .6 .6 .6 .6 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 .756 1
alfa= 1 0 .8 .9

a	b	S	I	Gt	Gv	R.T.
Edifici original						
8.90	13.40	100.2	2.715	0.946	1.934	0.942
Variació a amb b constant						
a= 8.90/ 9.399999 / .1						
8.90	13.40	100.2	2.715	0.946	1.934	0.942
9.00	13.40	101.3	2.711	0.944	1.934	0.942
9.10	13.40	102.4	2.707	0.942	1.934	0.941
9.20	13.40	103.5	2.703	0.940	1.934	0.940
9.30	13.40	104.7	2.699	0.938	1.934	0.939
9.40	13.40	105.8	2.695	0.936	1.934	0.939

Variació a/b per RT constant
ratio inicial= .942 desviació= .01
a= 8.90/ 9.399999 / .1 b= 12.4 / 13.4 / .2

13.40	100.2	2.715	0.946	1.934	0.942
13.40	101.3	2.711	0.944	1.934	0.942
13.40	102.4	2.707	0.942	1.934	0.941
13.20	102.0	2.738	0.945	1.934	0.951
13.40	103.5	2.703	0.940	1.934	0.940
13.20	103.1	2.734	0.943	1.934	0.950
13.40	104.7	2.699	0.938	1.934	0.939
13.20	104.2	2.731	0.941	1.934	0.949
13.40	105.8	2.695	0.936	1.934	0.939

Variació a/b per S constant
a= 8.899999 / 9.399999 / .1

8.90	13.40	100.2	2.715	0.946	1.934	0.942
9.00	13.25	100.2	2.737	0.947	1.934	0.949
9.10	13.11	100.2	2.759	0.949	1.934	0.957
9.20	12.96	100.2	2.782	0.950	1.934	0.964
9.30	12.82	100.2	2.804	0.952	1.934	0.971
9.40	12.69	100.2	2.827	0.954	1.934	0.978

edifici: nadall
variant 4 orientació principal=oeste ESTIU
Rv= 2050 D= 0 rh= 6.715
c= .705 d= 0 f= 0
kn= 5 4.4 1.25 2.1 4.4 2.1 5 1.25 5 1.25 1.7 1.21 1.5 1.34 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .1 .1 .6 .1 .6 .6 .6 .6 .6 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 1 .756
alfa= 1 0 .9 .8

a	b	S	I	Gt	Gv	R.T.

Edifici original

8.90	13.40	100.2	2.715	0.946	1.934	0.942

Variació a amb b constant
a= 8.90/ 9.399999 / .1

8.90	13.40	100.2	2.715	0.946	1.934	0.942
9.00	13.40	101.3	2.711	0.944	1.934	0.942
9.10	13.40	102.4	2.707	0.942	1.934	0.941
9.20	13.40	103.5	2.703	0.940	1.934	0.940
9.30	13.40	104.7	2.699	0.938	1.934	0.939
9.40	13.40	105.8	2.695	0.936	1.934	0.939

Variació a/b per RT constant
ratio inicial= .942 desviació= .01
a= 8.90/ 9.399999 / .1 b= 12.4 / 13.4 / .2

13.40	100.2	2.715	0.946	1.934	0.942
13.40	101.3	2.711	0.944	1.934	0.942
13.40	102.4	2.707	0.942	1.934	0.941
13.20	102.0	2.738	0.945	1.934	0.951
13.40	103.5	2.703	0.940	1.934	0.940
13.20	103.1	2.734	0.943	1.934	0.950
13.40	104.7	2.699	0.938	1.934	0.939
13.20	104.2	2.731	0.941	1.934	0.949
13.40	105.8	2.695	0.936	1.934	0.939

Variació a/b per S constant
a= 8.899999 / 9.399999 / .1

8.90	13.40	100.2	2.715	0.946	1.934	0.942
9.00	13.25	100.2	2.737	0.947	1.934	0.949
9.10	13.11	100.2	2.759	0.949	1.934	0.957
9.20	12.96	100.2	2.782	0.950	1.934	0.964
9.30	12.82	100.2	2.804	0.952	1.934	0.971
9.40	12.69	100.2	2.827	0.954	1.934	0.978

edifici: nadall
variant 5 orientació principal=sureste ESTIU
Rv= 2050 D= 0 rh= 9.279
c= .98 d= 0 f= 0
kn= 5 4.4 1.25 2.1 4.4 2.1 5 1.25 5 1.25 1.7 1.21 1.5 1.34 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .1 .1 .6 .1 .6 .6 .6 .6 .6 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 1.07458 1.2469
alfa= .95 0 .9 .95

a	b	S	I	Gt	Gv	R.T.

Edifici original

8.90	13.40	100.2	2.862	0.936	2.672	0.793

Variació a amb b constant
a= 8.90/ 9.399999 / .1

8.90	13.40	100.2	2.862	0.936	2.672	0.793
9.00	13.40	101.3	2.856	0.934	2.672	0.791
9.10	13.40	102.4	2.851	0.932	2.672	0.790
9.20	13.40	103.5	2.846	0.930	2.672	0.789
9.30	13.40	104.7	2.841	0.928	2.672	0.788
9.40	13.40	105.8	2.836	0.926	2.672	0.788

Variació a/b per RT constant
ratio inicial= .793 desviació= .01
a= 8.90/ 9.399999 / .1 b= 12.4 / 13.4 / .2

13.20	98.7	2.898	0.941	2.672	0.801
13.40	100.2	2.862	0.936	2.672	0.793
13.20	99.8	2.892	0.939	2.672	0.800
13.40	101.3	2.856	0.934	2.672	0.791
13.20	100.9	2.887	0.937	2.672	0.799
13.40	102.4	2.851	0.932	2.672	0.790
13.20	102.0	2.882	0.935	2.672	0.798
13.40	103.5	2.846	0.930	2.672	0.789
13.20	103.1	2.877	0.933	2.672	0.797
13.40	104.7	2.841	0.928	2.672	0.788
13.20	104.2	2.872	0.931	2.672	0.796
13.40	105.8	2.836	0.926	2.672	0.788

Variació a/b per S constant
a= 8.899999 / 9.399999 / .1

8.90	13.40	100.2	2.862	0.936	2.672	0.793
9.00	13.25	100.2	2.883	0.938	2.672	0.798
9.10	13.11	100.2	2.904	0.939	2.672	0.804
9.20	12.96	100.2	2.926	0.941	2.672	0.809
9.30	12.82	100.2	2.948	0.942	2.672	0.815
9.40	12.69	100.2	2.969	0.944	2.672	0.821

edifici: nadall
variant 6 orientació principal=suroeste ESTIU
Rv= 2050 D= 0 rh= 9.279
c= .98 d= 0 f= 0
kn= 5 4.4 1.25 2.1 4.4 2.1 5 1.25 5 1.25 1.7 1.21 1.5 1.34 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .1 .1 .6 .1 .6 .6 .6 .6 .6 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 1.2469 1.07458
alfa= .95 0 .9 .9

a	b	S	I	Gt	Gv	R.T.

Edifici original

8.90	13.40	100.2	2.862	0.936	2.672	0.793

Variació a amb b constant
a= 8.90/ 9.399999 / .1

8.90	13.40	100.2	2.862	0.936	2.672	0.793
9.00	13.40	101.3	2.856	0.934	2.672	0.792
9.10	13.40	102.4	2.851	0.932	2.672	0.791
9.20	13.40	103.5	2.846	0.930	2.672	0.790
9.30	13.40	104.7	2.841	0.928	2.672	0.789
9.40	13.40	105.8	2.836	0.926	2.672	0.788

Variació a/b per RT constant
ratio inicial= .793 desviació= .01
a= 8.90/ 9.399999 / .1 b= 12.4 / 13.4 / .2

13.20	98.7	2.898	0.940	2.672	0.802
13.40	100.2	2.862	0.936	2.672	0.793
13.20	99.8	2.892	0.938	2.672	0.801
13.40	101.3	2.856	0.934	2.672	0.792
13.20	100.9	2.887	0.936	2.672	0.800
13.40	102.4	2.851	0.932	2.672	0.791
13.20	102.0	2.882	0.934	2.672	0.799
13.40	103.5	2.846	0.930	2.672	0.790
13.20	103.1	2.877	0.932	2.672	0.798
13.40	104.7	2.841	0.928	2.672	0.789
13.20	104.2	2.872	0.930	2.672	0.797
13.40	105.8	2.836	0.926	2.672	0.788

Variació a/b per S constant
a= 8.899999 / 9.399999 / .1

8.90	13.40	100.2	2.862	0.936	2.672	0.793
9.00	13.25	100.2	2.883	0.937	2.672	0.798
9.10	13.11	100.2	2.904	0.939	2.672	0.804
9.20	12.96	100.2	2.926	0.940	2.672	0.809
9.30	12.82	100.2	2.948	0.941	2.672	0.815
9.40	12.69	100.2	2.969	0.943	2.672	0.821

edifici: bionadall
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 11.274
c= 1 d= 0 f= 0
kn= 5 4.4 1.25 2.1 4.4 .46 5 .4 5 .4 1.7 1.21 1.6 1.34 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .2 .1 .2 .1 .2 .6 .6 .6 .6 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 1.345 1.345
alfa= 0 0 1 1

a	b	S	I	Gt	Gv	R.T.
Edifici original						
8.90	13.40	100.2	2.360	0.656	3.247	0.604

edifici: bionadall
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 2.024
c= .187 d= 0 f= 0
kn= 5 4.4 .4 .46 4.4 .46 5 .4 5 .4 1.7 1.21 1.6 1.34 0 0 0 0 0 0
ckn= .1 .1 .2 .2 .1 .2 .1 .2 .1 .2 .6 .6 .6 .6 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 0 1.345 1.345
alfa= .8 0 1 1

a	b	S	I	Gt	Gv	R.T.
Edifici original						
8.90	13.40	100.2	1.379	0.798	0.583	0.998

edifici: bionadall
variant 3 orientació principal=este ESTIU
Rv= 2050 D= 0 rh= 6.715
c= .705 d= 0 f= 0
kn= 5 4.4 .4 .46 4.4 .46 5 .4 5 1.25 1.7 1.21 1.6 1.34 0 0 0 0 0 0
ckn= .1 .1 .2 .2 .1 .2 .1 .2 .1 .6 .6 .6 .6 .6 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 .756 1
alfa= 1 0 .8 .9

a	b	S	I	Gt	Gv	R.T.
Edifici original						
8.90	13.40	100.2	2.398	0.832	1.934	0.867

edifici: bionadall
variant 4 orientació principal=oeste ESTIU
Rv= 2050 D= 0 rh= 6.715
c= .705 d= 0 f= 0
kn= 5 4.4 .4 .46 4.4 .46 5 1.25 5 .4 1.7 1.21 1.6 1.34 0 0 0 0 0 0
ckn= .1 .1 .2 .2 .1 .2 .1 .6 .1 .2 .6 .6 .6 .6 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 1 .756
alfa= 1 0 .9 .8

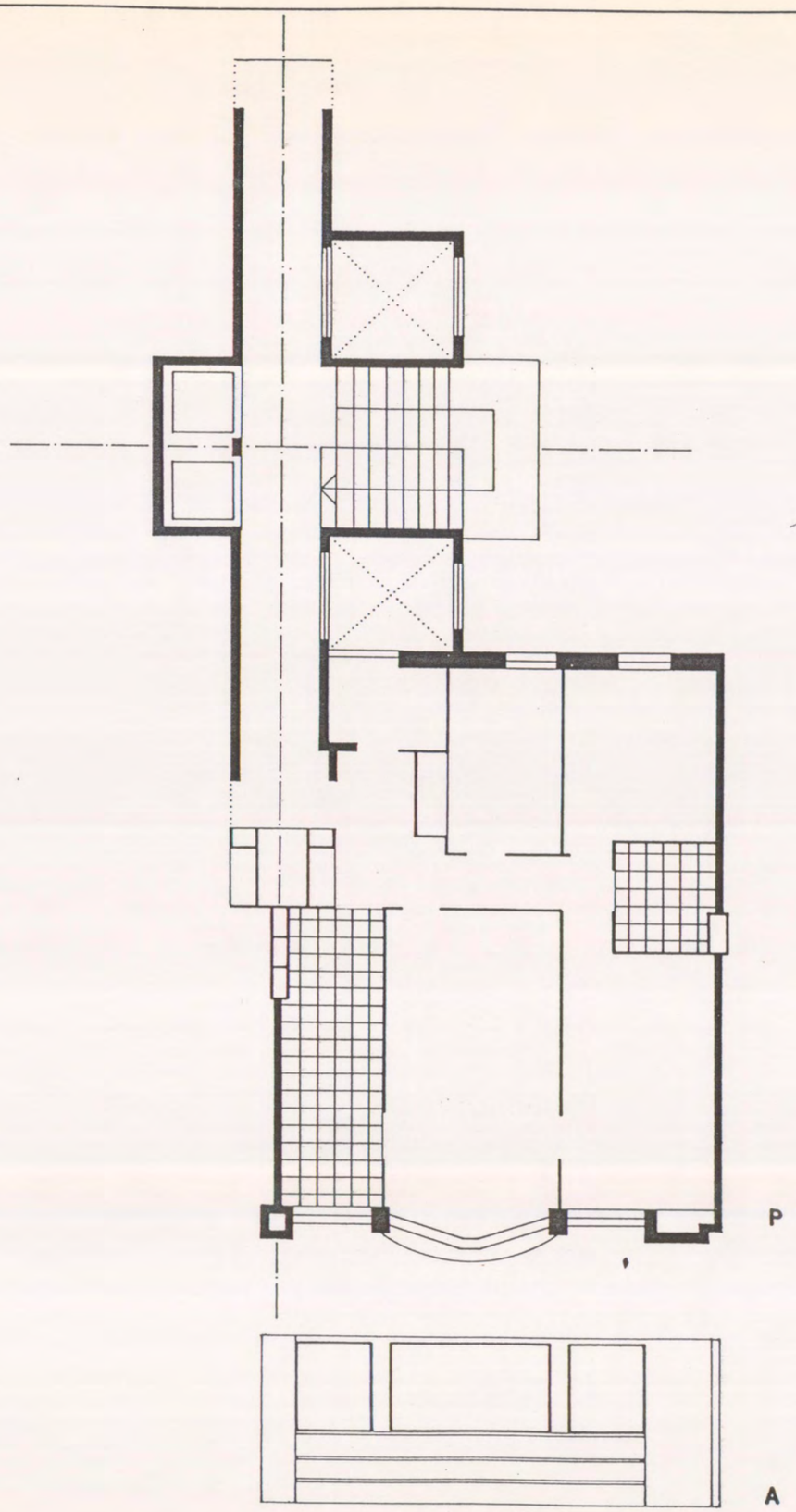
a	b	S	I	Gt	Gv	R.T.
Edifici original						
8.90	13.40	100.2	2.398	0.832	1.934	0.867

edifici: bionadall
variant 5 orientació principal=sureste ESTIU
Rv= 2050 D= 0 rh= 9.279
c= .98 d= 0 f= 0
kn= 5 4.4 1.25 2.1 4.4 .46 5 .4 5 1.25 1.7 1.21 1.6 1.34 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .2 .1 .2 .1 .6 .6 .6 .6 .6 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 1.07458 1.2469
alfa= .95 0 .9 .95

a	b	S	I	Gt	Gv	R.T.
Edifici original						
8.90	13.40	100.2	2.813	0.874	2.672	0.793

edifici: bionadall
variant 6 orientació principal=suroeste ESTIU
Rv= 2050 D= 0 rh= 9.279
c= .98 d= 0 f= 0
kn= 5 4.4 1.25 2.1 4.4 .46 5 1.25 5 .4 1.7 1.21 1.6 1.34 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .2 .1 .6 .1 .2 .6 .6 .6 .6 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 1.2469 1.07458
alfa= .95 0 .9 .9

a	b	S	I	Gt	Gv	R.T.
Edifici original						
8.90	13.40	100.2	2.813	0.873	2.672	0.793



2.I.D.7

VIV. GRAN VIA CORTS CAT. (B)

J. BOSCH, S.TARRUS, S.VIVES

DATOS GEOMETRICOS

a = 7,45 m	(7,45/8,20 m)
b = 9,75 m	(9,75/10,65 m)
S = 68,90 m²	V = 206,72 m3
Si/S = 0,18	Sit/Sio = 1,09

RATIOS TERMICOS (°C)

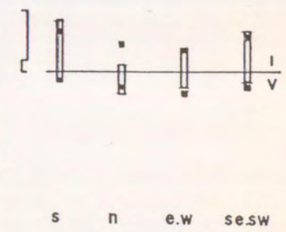
	sin aislar	aislado
invierno		
S	4,11	4,38
N	0,57	0,45
E	1,61	0,90
W	1,61	0,90
NE	3,11	1,33
SW	3,11	1,33
verano		
S	0,67	0,67
N	1,63	1,86
E	1,34	1,00
W	1,34	1,00
SE	0,97	0,98
SW	0,97	0,98

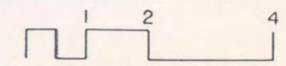
MASA TERMICA (kcal/°C m3)

30,28 29,47

RT CON

RT SIN





BARCELONA 85·88

E.T.S.A.B. U.P.C.

TESIS DOCTORAL · BIOCLIMATISMO Y TIPO ARQUITECTONICO EN CATALUÑA EN EL PERIODO 1930 1985 · VICTOR SEGUI SANTANA

VIVIENDAS GRAN VIA CORTS CATALANES (B) J. BOSCH . S. TARRUS . S VIVES

2107

CAPTORES TRANSPARENTES	1	VIDRIO SUR	S	1.1376A
			t	0.7
			CR	CR1
	2	VIDRIO PATI	S	0.5915A
			t	0.7
			CR	PATIO
	3	VIDRIO PATI	S	0.031B
			t	0.7
			CR	PATIO
	4		S	
			t	
			CR	
	5		S	
			t	
			CR	
	6		S	
			t	
			CR	
CAPTORES OPACOS	1	P. SUR 1	S	1.1637A
			CK	CK3
			α	0.6
			CR	CR1
	2	P SUR 2	S	0.3986A
			CK	CK4
			α	0.6
			CR	CR1
	3		S	
			CK	
			α	
			CR	
	4		S	
			CK	
			α	
			CR	
	5		S	
			CK	
			α	
			CR	
	6		S	
			CK	
			α	
			CR	
	7		S	
			CK	
			α	
			CR	
	8		S	
			CK	
			α	
			CR	
	9		S	
			CK	
			α	
			CR	
CUBIERTA	1		S	
			CK	
			α	

TRANSMISION FACHADAS	1	V. SUR 1	S	0.2718A
			K	K1
			K	X1
	2	V. SUR 2	S	0.8657A
			K	K2
			K	X1
	3	P. SUR 1	S	1.1637A
			K	K3
			K	X1
	4	P. SUR 2	S	0.3986A
			K	K4
			K	X1
	5	V. PATIO 1	S	0.3624A
			K	K5
			K	PATIO
	6	V. PATIO 2	S	0.169A
			K	K6
			K	PATIO
	7	V. PATIO 3	S	0.031B
			K	K6
			K	PATIO
	8	P. PATIO 1	S	1.5946A
			K	K7
			K	PATIO
	9	P. PATIO 2	S	0.2413B
			K	K8
			K	PATIO
	10	P. PATIO 3	S	0.3877B
			K	K9
			K	PATIO
	11		S	
			K	
			K	
	12		S	
			K	
			K	
	13		S	
			K	
			K	
	14		S	
			K	
			K	
	15		S	
			K	
			K	
	16		S	
			K	
			K	

INFILTRACIONES			S	15.677
			R	0.91
SEPARACION TERRENO	1		S	
			K	
	2		S	
			K	
SEPARACION OTROS LOCALES	1	MEDIAN.	S	4.4246B
			K	K10
	2	PUERTA	S	1.68
			K	K11
	3	FORJADOS	S	1.8972AB
			K	K12
	4		S	
			K	
	5		S	
			K	
TRANSMISION PIEL HORIZONT. CUBIERTA	1		S	
			K	
	2		S	
			K	

SUPERFICIE EN PLANTA	(0.94864 A.B)

VIVIENDAS GRAN VIA CORTS CATALANES (B). J. BOSCH. S. TARRUS. S. VIVES

2107

VARIABLES GEOMETRICAS	A	B	Amin.	Amax.	I	Bmin.	Bmax.	I	DESVIACION	B para S Cte.	VOLUMEN	SUPERFICIE
	7.45	9.75	7.45	8.2	0.15	9.75	10.65	0.15	0.01	72.6376/A*B	206.721	68.907

R=2800 — INVIERNO

K_1	K_2	K_3	K_4	K_5	K_6	K_7	K_8	K_9	K_{10}	K_{11}	K_{12}	K_{13}	K_{14}	K_{15}	K_{16}	K_{17}	K_{18}
4.4	5	1.25	1.27	4.4	5	1.25	2.1	1.48	1.7	1.6	1.34						

VERANO — R=2050

O	RH	COEFICIENTES								COEFICIENTES DE TRANSMISION K														COEFICIENTES						RH	O
S	0.91	CR_1	1	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	CR_4		CR_3		CR_2	1	CR_1		S
		K_1	0.8	K_2		K_3		K_4																					0.9	K_1		
		C		D		F		G		4.4	5	1.25	1.27	4.4	5	0.4	0.46	0.43	1.7	1.6	1.34					G		F		D		C	18.315	
N	0.91	CR_1	0.137	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	CR_4		CR_3		CR_2	0.756	CR_1		N
		K_1	1.2	K_2		K_3		K_4																					0.8	K_1		
		C		D		F		G		4.4	5	0.4	0.53	4.4	5	0.4	0.46	0.43	1.7	1.6	1.34					G		F		D		C	3.289	
E	0.91	CR_1	0.3977	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	CR_4		CR_3		CR_2	1.345	CR_1		E
		K_1	1	K_2		K_3		K_4																					1	K_1		
		C		D		F		G		4.4	5	0.4	0.53	4.4	5	0.4	0.46	0.43	1.7	1.6	1.34					G		F		D		C	10.910	
W		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	CR_4		CR_3		CR_2		CR_1		W
		K_1		K_2		K_3		K_4																						K_1		
		C		D		F		G																						C		
SE	0.91	CR_1	0.768	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	CR_4		CR_3		CR_2	1.2469	CR_1		SE
		K_1	0.9	K_2		K_3		K_4																					0.95	K_1		
		C		D		F		G		4.4	5	1.25	1.27	4.4	5	0.4	0.46	0.43	1.7	1.6	1.34					G		F		D		C	15.075	
SW		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	CR_4		CR_3		CR_2		CR_1		SW
		K_1		K_2		K_3		K_4																						K_1		
		C		D		F		G																						C		

```
44 REM *************** ESQUELET DE L'EDIFICI:bosch                    ************
***
45 REM
50 DO=CR1*1.1376*A*.7                          'façana 1 - Capt.transp. CRi*s*t
52 DA=CR2*0                          'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*0                          'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                          'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*(.5315*A*.7+.031*B*.7)                        'patis    - Capt.transp.
Ri*s*t
60 DP=CR1*(1.1637*A*CK3*.6+.3986*A*CK4*.6)    'façana 1 - Capt.opacs  CRi*s*ab
ckn
62 DD=CR2*0                          'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*0                          'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*0                          'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*0                          'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=.52*0                          'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=.94864*A*B                    'superfície en planta   funció a i b
74 DU=A1*(.2718*A*K1+.8657*A*K2+1.1637*A*K3+.3986*A*K4)
açana 1 - Transmissió  ai*s*kn
76 DK=A2*0                           'façana 2 - Transmissió  ai*s*kn
78 DL=A3*0                           'façana 3 - Transmissió  ai*s*kn
80 DM=A4*0                           'façana 4 - Transmissió  ai*s*kn
82 DH=.8*(.3624*A*K5+.169*A*K6+.031*B*K6+1.5946*A*K7+.2413*B*K8+.3877*B*K9)
                    'patis    - Transmissió  ai*s*kn
84 DV=0                              'terra    - Transmissió  s*kn
86 DW=(4.4246*B*K10+1.68*K11+1.8972*A*B*K12)                          'locals
- Transmissió  s*kn
88 DX=0                              'coberta  - Transmissió  s*kn
89 RETURN
90 B=72.63761/A                       'valor b per S constant   (funció de a)
```

edifici: bosch
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= .91
c= 0 d= 0 f= 0
kn= 4.4 5 1.25 1.27 4.4 5 1.25 2.1 1.48 1.7 1.6 1.34 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .6 .1 .1 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .8 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.45	9.75	68.9	5.797	1.147	0.262	4.114
Variació a amb b constant						
a= 7.45/ 8.2 / .15						
7.45	9.75	68.9	5.797	1.147	0.262	4.114
7.60	9.75	70.3	5.797	1.142	0.262	4.129
7.75	9.75	71.7	5.797	1.137	0.262	4.144
7.90	9.75	73.1	5.797	1.132	0.262	4.159
8.05	9.75	74.5	5.797	1.127	0.262	4.173
8.20	9.75	75.8	5.797	1.122	0.262	4.186
Variació a/b per RT constant						
ratio inicial= 4.114	desviació= .01					
a= 7.45/ 8.2 / .15	b= 9.75 / 10.65 / .15					
	9.75	68.9	5.797	1.147	0.262	4.114
	9.90	74.2	5.709	1.126	0.262	4.111
Variació a/b per S constant						
a= 7.45 / 8.2 / .15						
7.45	9.75	68.9	5.797	1.147	0.262	4.114
7.60	9.56	68.9	5.914	1.149	0.262	4.191
7.75	9.37	68.9	6.030	1.151	0.262	4.268
7.90	9.19	68.9	6.147	1.153	0.262	4.344
8.05	9.02	68.9	6.263	1.155	0.262	4.419
8.20	8.86	68.9	6.380	1.158	0.262	4.493

edifici: bosch
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= .91
c= 0 d= 0 f= 0
kn= 4.4 5 1.25 1.27 4.4 5 1.25 2.1 1.48 1.7 1.6 1.34 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .6 .1 .1 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 0 0 0
alfa= 1.2 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.45	9.75	68.9	0.867	1.255	0.262	0.571
Variació a amb b constant						
a= 7.45/ 8.2 / .15						
7.45	9.75	68.9	0.867	1.255	0.262	0.571
7.60	9.75	70.3	0.867	1.250	0.262	0.573
7.75	9.75	71.7	0.867	1.244	0.262	0.575
7.90	9.75	73.1	0.867	1.240	0.262	0.577
8.05	9.75	74.5	0.866	1.235	0.262	0.578
8.20	9.75	75.8	0.866	1.230	0.262	0.580
Variació a/b per S constant						
a= 7.45 / 8.2 / .15						
7.45	9.75	68.9	2.356	1.201	0.262	1.610
7.60	9.56	68.9	2.403	1.204	0.262	1.639
7.75	9.37	68.9	2.451	1.207	0.262	1.668
7.90	9.19	68.9	2.498	1.210	0.262	1.696
8.05	9.02	68.9	2.545	1.214	0.262	1.724
8.20	8.86	68.9	2.592	1.217	0.262	1.752

edifici: bosch
variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= .91
c= 0 d= 0 f= 0
kn= 4.4 5 1.25 1.27 4.4 5 1.25 2.1 1.48 1.7 1.6 1.34 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .6 .1 .1 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.45	9.75	68.9	4.472	1.174	0.262	3.114
Variació a amb b constant						
a= 7.45/ 8.2 / .15						
7.45	9.75	68.9	4.472	1.174	0.262	3.114
7.60	9.75	70.3	4.472	1.169	0.262	3.125
7.75	9.75	71.7	4.471	1.164	0.262	3.136
7.90	9.75	73.1	4.471	1.159	0.262	3.147
8.05	9.75	74.5	4.471	1.154	0.262	3.157
8.20	9.75	75.8	4.471	1.149	0.262	3.167
Variació a/b per RT constant						
ratio inicial= 3.114	desviació= .01					
a= 7.45/ 8.2 / .15	b= 9.75 / 10.65 / .15					
	9.75	68.9	4.472	1.174	0.262	3.114
	9.90	74.2	4.404	1.153	0.262	3.112
	9.90	75.6	4.404	1.148	0.262	3.122
Variació a/b per S constant						
a= 7.45 / 8.2 / .15						
7.45	9.75	68.9	4.472	1.174	0.262	3.114
7.60	9.56	68.9	4.562	1.176	0.262	3.171
7.75	9.37	68.9	4.651	1.179	0.262	3.228
7.90	9.19	68.9	4.741	1.181	0.262	3.284
8.05	9.02	68.9	4.831	1.184	0.262	3.339
8.20	8.86	68.9	4.921	1.187	0.262	3.394

Variació a/b per RT constant
ratio inicial= .571 desviació= .01
a= 7.45/ 8.2 / .15 b= 9.75 / 10.65 / .15

9.75	68.9	0.867	1.255	0.262	0.571
9.90	70.0	0.854	1.248	0.262	0.565
9.75	70.3	0.867	1.250	0.262	0.573
9.90	71.4	0.854	1.243	0.262	0.567
9.75	71.7	0.867	1.244	0.262	0.575
9.90	72.8	0.854	1.237	0.262	0.569
10.05	73.9	0.841	1.231	0.262	0.563
9.75	73.1	0.867	1.240	0.262	0.577
9.90	74.2	0.853	1.233	0.262	0.571
10.05	75.3	0.841	1.226	0.262	0.565
9.75	74.5	0.866	1.235	0.262	0.578
9.90	75.6	0.853	1.228	0.262	0.572
10.05	76.7	0.841	1.221	0.262	0.566
9.75	75.8	0.866	1.230	0.262	0.580
9.90	77.0	0.853	1.223	0.262	0.574
10.05	78.2	0.841	1.217	0.262	0.568
10.20	79.3	0.828	1.210	0.262	0.562

Variació a/b per S constant
a= 7.45 / 8.2 / .15

7.45	9.75	68.9	0.867	1.255	0.262	0.571
7.60	9.56	68.9	0.884	1.259	0.262	0.581
7.75	9.37	68.9	0.901	1.263	0.262	0.591
7.90	9.19	68.9	0.919	1.267	0.262	0.600
8.05	9.02	68.9	0.936	1.272	0.262	0.610
8.20	8.86	68.9	0.953	1.276	0.262	0.619

edifici: bosch
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= .91
= 0 d= 0 f= 0
kn= 4.4 5 1.25 1.27 4.4 5 1.25 2.1 1.48 1.7 1.6 1.34 0 0 0 0 0
0 0 0
ckn= .1 .1 .6 .6 .1 .1 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 0 0
lfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.

Edifici original

7.45	9.75	68.9	2.356	1.201	0.262	1.610

Variació a amb b constant
a= 7.45/ 8.2 / .15

7.45	9.75	68.9	2.356	1.201	0.262	1.610
7.60	9.75	70.3	2.356	1.196	0.262	1.616
7.75	9.75	71.7	2.356	1.190	0.262	1.621
7.90	9.75	73.1	2.356	1.186	0.262	1.627
8.05	9.75	74.5	2.356	1.181	0.262	1.632
8.20	9.75	75.8	2.356	1.176	0.262	1.637

Variació a/b per RT constant
tio inicial= 1.61 desviació= .01
a= 7.45/ 8.2 / .15 b= 9.75 / 10.65 / .15

9.75	68.9	2.356	1.201	0.262	1.610
9.75	70.3	2.356	1.196	0.262	1.616
9.90	72.8	2.320	1.184	0.262	1.604
9.90	74.2	2.320	1.179	0.262	1.609
9.90	75.6	2.320	1.175	0.262	1.614
9.90	77.0	2.320	1.170	0.262	1.619
10.05	78.2	2.286	1.164	0.262	1.602

edifici: bosch B10
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= .91
c= 0 d= 0 f= 0
kn= 4.4 5 1.25 1.27 4.4 5 .4 .46 .43 1.7 1.6 1.34 0 0 0 0 0 0
0 0
ckn= .1 .1 .6 .6 .1 .1 .2 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .8 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.45	9.75	68.9	5.797	1.078	0.262	4.327

edifici: bosch
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= .91
c= 0 d= 0 f= 0
kn= 4.4 5 .4 .53 4.4 5 .4 .46 .43 1.7 1.6 1.34 0 0 0 0 0 0 0
0
ckn= .1 .1 .2 .2 .1 .1 .2 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 0 0 0
alfa= 1.2 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.45	9.75	68.9	0.651	1.130	0.262	0.467

edifici: bosch
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= .91
c= 0 d= 0 f= 0
kn= 4.4 5 .4 .53 4.4 5 .4 .46 .43 1.7 1.6 1.34 0 0 0 0 0 0 0
0
ckn= .1 .1 .2 .2 .1 .1 .2 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.45	9.75	68.9	1.729	1.085	0.262	1.283

edifici: bosch
variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= .91
c= 0 d= 0 f= 0
kn= 4.4 5 1.25 1.27 4.4 5 .4 .46 .43 1.7 1.6 1.34 0 0 0 0 0 0
0 0
ckn= .1 .1 .6 .6 .1 .1 .2 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.45	9.75	68.9	4.472	1.104	0.262	3.272

```
44 REM *************** ESQUELET DE L'EDIFICI:bosch ***********
***
45 REM
50 DO=CR1*1.1376*A*.7                          'façana 1 - Capt.transp. CRi*s*t
52 DA=CR2*0                                    'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*0                                    'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                                    'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*(.5315*A*.7+.031*B*.7)                          'patis    - Capt.transp
Ri*s*t
60 DP=CR1*(1.1637*A*CK3*.6+.3986*A*CK4*.6)    'façana 1 - Capt.opacs  CRi*s*a
ckn
62 DD=CR2*0                                    'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*0                                    'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*0                                    'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*0                                    'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=2.4*0                                    'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=.94864*A*B                              'superfície en planta   funció a i b
74 DU=A1*(.2718*A*K1+.8657*A*K2+1.1637*A*K3+.3986*A*K4)
açana 1 - Transmissió  ai*s*kn
76 DK=A2*0                                     'façana 2 - Transmissió  ai*s*kn
78 DL=A3*0                                     'façana 3 - Transmissió  ai*s*kn
80 DM=A4*0                                     'façana 4 - Transmissió  ai*s*kn
82 DH=.8*(.3624*A*K5+.169*A*K6+.031*B*K6+1.5946*A*K7+.2413*B*K8+.3877*B*K9)
                  'patis    - Transmissió  ai*s*kn
84 DV=0                                        'terra    - Transmissió  s*kn
86 DW=(4.4246*B*K10+1.68*K11+1.8972*A*B*K12)                              'locals
- Transmissió  s*kn
88 DX=0                                        'coberta  - Transmissió  s*kn
89 RETURN
90 B=72.63761/A                                'valor b per S constant   (funció de a)
```

edifici: bosch
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 18.315
c= 0 d= 0 f= 0
kn= 4.4 5 1.25 1.27 4.4 5 1.25 2.1 1.48 1.7 1.6 1.34 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .6 .1 .1 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.45	9.75	68.9	4.244	1.048	5.275	0.671
Variació a amb b constant						
a= 7.45/ 8.2 / .15						
7.45	9.75	68.9	4.244	1.048	5.275	0.671
7.60	9.75	70.3	4.244	1.043	5.275	0.671
7.75	9.75	71.7	4.244	1.039	5.275	0.672
7.90	9.75	73.1	4.244	1.035	5.275	0.672
8.05	9.75	74.5	4.244	1.031	5.275	0.673
8.20	9.75	75.8	4.244	1.027	5.275	0.673
Variació a/b per RT constant						
ratio inicial= .671 desviació= .01						
a= 7.45/ 8.2 / .15	b= 9.75 / 10.65 / .15					
	9.75	68.9	4.244	1.048	5.275	0.671
	9.75	70.3	4.244	1.043	5.275	0.671
	9.90	71.4	4.180	1.037	5.275	0.662
	9.75	71.7	4.244	1.039	5.275	0.672
	9.90	72.8	4.180	1.033	5.275	0.662
	9.75	73.1	4.244	1.035	5.275	0.672
	9.90	74.2	4.180	1.029	5.275	0.663
	9.75	74.5	4.244	1.031	5.275	0.673
	9.90	75.6	4.180	1.025	5.275	0.663
	9.75	75.8	4.244	1.027	5.275	0.673
	9.90	77.0	4.180	1.021	5.275	0.663
Variació a/b per S constant						
a= 7.45 / 8.2 / .15						
7.45	9.75	68.9	4.244	1.048	5.275	0.671
7.60	9.56	68.9	4.330	1.051	5.275	0.684
7.75	9.37	68.9	4.415	1.054	5.275	0.697
7.90	9.19	68.9	4.500	1.057	5.275	0.710
8.05	9.02	68.9	4.585	1.061	5.275	0.723
8.20	8.86	68.9	4.671	1.065	5.275	0.736

edifici: bosch
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 3.289
c= 0 d= 0 f= 0
kn= 4.4 5 1.25 1.27 4.4 5 1.25 2.1 1.48 1.7 1.6 1.34 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .6 .1 .1 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 0 0 0
alfa= .8 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.45	9.75	68.9	3.224	1.021	0.947	1.638
Variació a amb b constant						
a= 7.45/ 8.2 / .15						
7.45	9.75	68.9	3.224	1.021	0.947	1.638
7.60	9.75	70.3	3.224	1.016	0.947	1.641
7.75	9.75	71.7	3.224	1.012	0.947	1.645
7.90	9.75	73.1	3.223	1.008	0.947	1.648
8.05	9.75	74.5	3.223	1.004	0.947	1.652
8.20	9.75	75.8	3.223	1.000	0.947	1.655
Variació a/b per RT constant						
ratio inicial= 1.638 desviació= .01						
a= 7.45/ 8.2 / .15	b= 9.75 / 10.65 / .15					
	9.75	68.9	3.224	1.021	0.947	1.638
	9.75	70.3	3.224	1.016	0.947	1.641
	9.75	71.7	3.224	1.012	0.947	1.645
	9.90	75.6	3.175	0.998	0.947	1.631
	9.90	77.0	3.175	0.994	0.947	1.635
Variació a/b per S constant						
a= 7.45 / 8.2 / .15						
7.45	9.75	68.9	3.224	1.021	0.947	1.638
7.60	9.56	68.9	3.288	1.023	0.947	1.668
7.75	9.37	68.9	3.353	1.026	0.947	1.699
7.90	9.19	68.9	3.418	1.029	0.947	1.729
8.05	9.02	68.9	3.483	1.032	0.947	1.759
8.20	8.86	68.9	3.547	1.035	0.947	1.789

edifici: bosch
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 10.91
c= 0 d= 0 f= 0
kn= 4.4 5 1.25 1.27 4.4 5 1.25 2.1 1.48 1.7 1.6 1.34 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .6 .1 .1 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.45	9.75	68.9	5.687	1.075	3.142	1.348
Variació a amb b constant						
a= 7.45/ 8.2 / .15						
7.45	9.75	68.9	5.687	1.075	3.142	1.348
7.60	9.75	70.3	5.687	1.070	3.142	1.350
7.75	9.75	71.7	5.687	1.066	3.142	1.351
7.90	9.75	73.1	5.687	1.062	3.142	1.352
8.05	9.75	74.5	5.687	1.058	3.142	1.354
8.20	9.75	75.8	5.687	1.054	3.142	1.355
Variació a/b per RT constant						
ratio inicial= 1.348 desviació= .01						
a= 7.45/ 8.2 / .15	b= 9.75 / 10.65 / .15					
	9.75	68.9	5.687	1.075	3.142	1.348
	9.75	70.3	5.687	1.070	3.142	1.350
	9.75	71.7	5.687	1.066	3.142	1.351
	9.75	73.1	5.687	1.062	3.142	1.352
	9.75	74.5	5.687	1.058	3.142	1.354
	9.75	75.8	5.687	1.054	3.142	1.355

Variació a/b per S constant
a= 7.45 / 8.2 / .15

7.45	9.75	68.9	5.687	1.075	3.142	1.348
7.60	9.56	68.9	5.802	1.078	3.142	1.374
7.75	9.37	68.9	5.916	1.082	3.142	1.400
7.90	9.19	68.9	6.030	1.086	3.142	1.426
8.05	9.02	68.9	6.145	1.090	3.142	1.451
8.20	8.86	68.9	6.259	1.094	3.142	1.477

edifici: bosch
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 15.075
c= 0 d= 0 f= 0
kn= 4.4 5 1.25 1.27 4.4 5 1.25 2.1 1.48 1.7 1.6 1.34 0 0 0 0 0
0 0 0 ,
ckn= .1 .1 .6 .6 .1 .1 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 0 0
alfa= .95 0 0 0

a	b	S	I	Gt	Gv	R.T.

Edifici original

7.45	9.75	68.9	5.277	1.061	4.342	0.976

Variació a amb b constant
a= 7.45/ 8.2 / .15

7.45	9.75	68.9	5.277	1.061	4.342	0.976
7.60	9.75	70.3	5.277	1.057	4.342	0.977
7.75	9.75	71.7	5.277	1.052	4.342	0.978
7.90	9.75	73.1	5.277	1.048	4.342	0.979
8.05	9.75	74.5	5.277	1.044	4.342	0.979
8.20	9.75	75.8	5.277	1.040	4.342	0.980

Variació a/b per RT constant
ratio inicial= .976 desviació= .01
a= 7.45/ 8.2 / .15 b= 9.75 / 10.65 / .15

9.75	68.9	5.277	1.061	4.342	0.976
9.75	70.3	5.277	1.057	4.342	0.977
9.75	71.7	5.277	1.052	4.342	0.978
9.75	73.1	5.277	1.048	4.342	0.979
9.75	74.5	5.277	1.044	4.342	0.979
9.75	75.8	5.277	1.040	4.342	0.980

Variació a/b per S constant
a= 7.45 / 8.2 / .15

7.45	9.75	68.9	5.277	1.061	4.342	0.976
7.60	9.56	68.9	5.383	1.065	4.342	0.995
7.75	9.37	68.9	5.489	1.068	4.342	1.014
7.90	9.19	68.9	5.595	1.072	4.342	1.033
8.05	9.02	68.9	5.701	1.075	4.342	1.052
8.20	8.86	68.9	5.807	1.079	4.342	1.071

edifici: bio bosch
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 18.315
c= 0 d= 0 f= 0
kn= 4.4 5 1.25 1.27 4.4 5 .4 .46 .43 1.7 1.6 1.34 0 0 0 0 0 0
0 0
ckn= .1 .1 .6 .6 .1 .1 .2 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .9 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	7.45	9.75	68.9	4.244	0.978	5.275	0.678

edifici: bio bosch
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 3.289
c= 0 d= 0 f= 0
kn= 4.4 5 .4 .53 4.4 5 .4 .46 .43 1.7 1.6 1.34 0 0 0 0 0 0 0
0
ckn= .1 .1 .2 .2 .1 .1 .2 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 0 0 0
alfa= .8 0 0 0

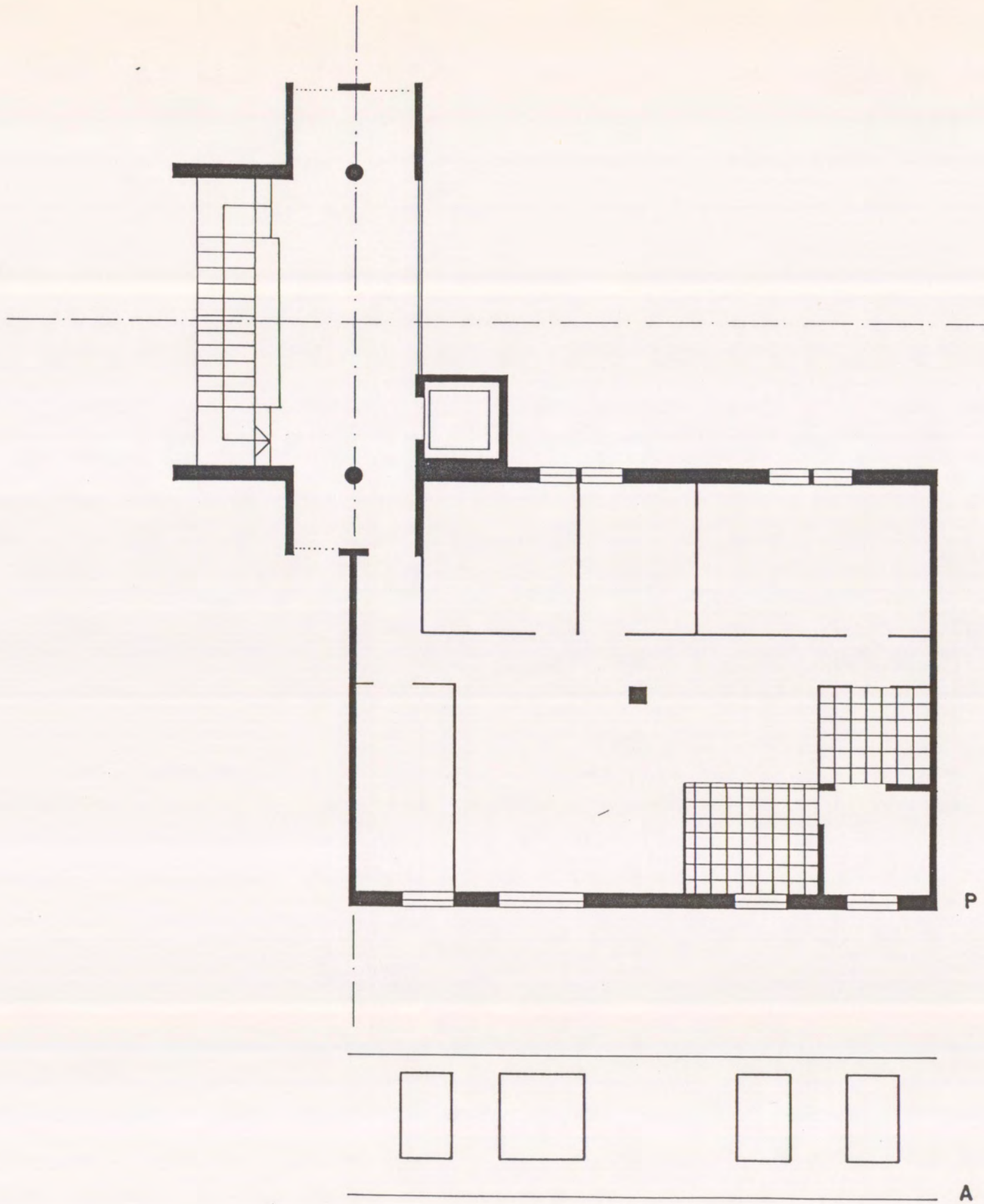
	a	b	S	I	Gt	Gv	R.T.
Edifici original	7.45	9.75	68.9	2.351	0.914	0.947	1.262

edifici: bio bosch
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 10.91
c= 0 d= 0 f= 0
kn= 4.4 5 .4 .53 4.4 5 .4 .46 .43 1.7 1.6 1.34 0 0 0 0 0 0 0
0
ckn= .1 .1 .2 .2 .1 .1 .2 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 0 0
alfa= 1 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	7.45	9.75	68.9	4.135	0.959	3.142	1.008

edifici: bio bosch
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 15.075
c= 0 d= 0 f= 0
kn= 4.4 5 1.25 1.27 4.4 5 .4 .46 .43 1.7 1.6 1.34 0 0 0 0 0 0
0 0
ckn= .1 .1 .6 .6 .1 .1 .2 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 0 0
alfa= .95 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	7.45	9.75	68.9	5.277	0.992	4.342	0.989



2.I.D.8

VIV. C/ PI I MOLIST (B)

J. GARCES . E. SORIA

DATOS GEOMETRICOS

a = 7,80 m	(7,80/8,30 m)
b = 11,00 m	(11,00/12,00 m)
S = 79,57 m²	V = 238,71 m3
Si/S = 0,12	Sit/Sio = 0,38

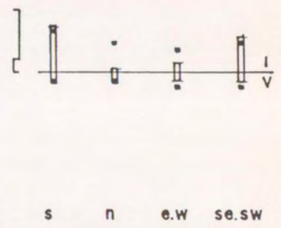
RATIOS TERMICOS (°C)

	sin aislar	aislado
invierno		
S	3,29	3,56
N	0,47	0,29
E	1,30	0,78
W	1,30	0,78
NE	2,51	2,71
SW	2,51	2,71
verano		
S	0,61	0,63
N	1,39	0,78
E	1,22	0,65
W	1,22	0,65
SE	0,89	0,91
SW	0,89	0,91

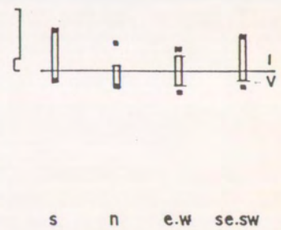
MASA TERMICA (kcal/°C m3)

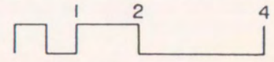
31,70 31,14

RT CON



RT SIN





BARCELONA 85·88

E.T.S.A.B. U.P.C.

TESIS DOCTORAL · BIOCLIMATISMO Y TIPO ARQUITECTONICO EN CATALUÑA EN EL PERIODO 1930 1985 · VICTOR SEGUI SANTANA

	VIVIENDAS E/ PI i MOLIST (B) J. GARCES. E. SORIA	2108

CAPTORES TRANSPARENTES	1	V. SUR	S	0.4145 A
			t	0.7
			CR	CR1
	2	V. PATIO	S	0.4654 A
			t	0.7
			CR	PATIO
	3		S	
			t	
			CR	
	4		S	
			t	
			CR	
	5		S	
			t	
			CR	
	6		S	
			t	
			CR	
CAPTORES OPACOS	1	P. SUR	S	2.285A
			CK	CK2
			α	0.6
			CR	K1
	2		S	
			CK	
			α	
			CR	
	3		S	
			CK	
			α	
			CR	
	4		S	
			CK	
			α	
			CR	
	5		S	
			CK	
			α	
			CR	
	6		S	
			CK	
			α	
			CR	
	7		S	
			CK	
			α	
			CR	
	8		S	
			CK	
			α	
			CR	
	9		S	
			CK	
			α	
			CR	
CUBIERTA	1		S	
			CK	
			α	

TRANSMISION FACHADAS	1	V. SUR	S	0.4145A
			K	K1
			K	K1
	2	P. SUR	S	2.285A
			K	K2
			K	K1
	3	V. PATIO 1	S	0.4654A
			K	K3
			K	PATIO
	4	P. PATIO 1	S	1.866A
			K	K4
			K	PATIO
	5	V. PATIO 2	S	0.1145A
			K	K5
			K	PATIO
	6	V. PATIO 3	S	0.077B
			K	K5
			K	PATIO
	7	P. PATIO 2	S	0.40A
			K	KG
			K	PATIO
	8	P PATIO 3	S	0.65B
			K	KG
			K	PATIO
	9		S	
			K	
			K	
	10		S	
			K	
			K	
	11		S	
			K	
			K	
	12		S	
			K	
			K	
	13		S	
			K	
			K	
	14		S	
			K	
			K	
	15		S	
			K	
			K	
	16		S	
			K	
			K	

INFILTRACIONES			S	13.22
			R	0.664
SEPARACION TERRENO	1		S	
			K	
	2		S	
			K	
SEPARACION OTROS LOCALES	1	MEDIAN 1	S	0.093A
			K	K7
	2	MEDIAN 2	S	4.915B
			K	K7
	3	PUERTA	S	1.68
			K	K8
	4	FORJADOS	S	1.8547A.B
			K	K9
	5		S	
			K	
TRANSMISION PIEL HORIZONT. CUBIERTA	1		S	
			K	
	2		S	
			K	

SUPERFICIE EN PLANTA	(0.9274 A.B).

VIVIENDAS c/ PI i MOLIST (B). J. GARCES. E. SORIA — 2108

VARIABLES GEOMETRICAS	A	B	Amin.	Amax.	I	Bmin.	Bmax.	I	DESVIACION	B para S Cte.	VOLUMEN	SUPERFICIE
	7.8	11	7.8	8.3	0.1	11	12	0.2	0.01	83.799/A = B	238.11	79.57

R=2800 — INVIERNO

K_1	K_2	K_3	K_4	K_5	K_6	K_7	K_8	K_9	K_{10}	K_{11}	K_{12}	K_{13}	K_{14}	K_{15}	K_{16}	K_{17}	K_{18}
4.4	1.25	4.4	1.25	5	2.1	1.7	1.6	1.34									

VERANO — R=2050

O	RH	COEFICIENTES	COEFICIENTES DE TRANSMISION K	COEFICIENTES	RH	O
S	0.664	CR_1 1 CR_2 CR_3 CR_4 K_1 0.8 K_2 K_3 K_4 C D F G	K'_1 K'_2 K'_3 K'_4 K'_5 K'_6 K'_7 K'_8 K'_9 K'_{10} K'_{11} K'_{12} K'_{13} K'_{14} K'_{15} K'_{16} K'_{17} K'_{18} 4.4 1.25 4.4 0.4 5 0.46 1.7 1.6 1.34	CR_4 CR_3 CR_2 1 CR_1 K_4 K_3 K_2 0.9 K_1 G F D C	14.184	S
N	0.664	CR_1 0.137 CR_2 CR_3 CR_4 K_1 1.2 K_2 K_3 K_4 C D F G	K'_1 K'_2 K'_3 K'_4 K'_5 K'_6 K'_7 K'_8 K'_9 K'_{10} K'_{11} K'_{12} K'_{13} K'_{14} K'_{15} K'_{16} K'_{17} K'_{18} 4.4 0.4 4.4 0.4 5 0.46 1.7 1.6 1.34	CR_4 CR_3 CR_2 0.756 CR_1 X_4 K_3 K_2 0.8 K_1 G F D C	2.547	N
E	0.664	CR_1 0.3977 CR_2 CR_3 CR_4 K_1 1 K_2 K_3 K_4 C D F G	K'_1 K'_2 K'_3 K'_4 K'_5 K'_6 K'_7 K'_8 K'_9 K'_{10} K'_{11} K'_{12} K'_{13} K'_{14} K'_{15} K'_{16} K'_{17} K'_{18} 4.4 0.4 4.4 0.4 5 0.46 1.7 1.6 1.34	CR_4 CR_3 CR_2 1.345 CR_1 K_4 K_3 K_2 1 K_1 G F D C	8.449	E
W		CR_1 CR_2 CR_3 CR_4 K_1 K_2 K_3 K_4 C D F G	K'_1 K'_2 K'_3 K'_4 K'_5 K'_6 K'_7 K'_8 K'_9 K'_{10} K'_{11} K'_{12} K'_{13} K'_{14} K'_{15} K'_{16} K'_{17} K'_{18}	CR_4 CR_3 CR_2 CR_1 K_4 K_3 K_2 K_1 G F D C		W
SE	0.664	CR_1 0.768 CR_2 CR_3 CR_4 K_1 0.9 K_2 K_3 K_4 C D F G	K'_1 K'_2 K'_3 K'_4 K'_5 K'_6 K'_7 K'_8 K'_9 K'_{10} K'_{11} K'_{12} K'_{13} K'_{14} K'_{15} K'_{16} K'_{17} K'_{18} 4.4 1.25 4.4 0.4 5 0.46 1.7 1.6 1.34	CR_4 CR_3 CR_2 1.2469 CR_1 K_4 K_3 K_2 0.95 K_1 G F D C	11.674	SE
SW		CR_1 CR_2 CR_3 CR_4 K_1 K_2 K_3 K_4 C D F G	K'_1 K'_2 K'_3 K'_4 K'_5 K'_6 K'_7 K'_8 K'_9 K'_{10} K'_{11} K'_{12} K'_{13} K'_{14} K'_{15} K'_{16} K'_{17} K'_{18}	CR_4 CR_3 CR_2 CR_1 K_4 K_3 K_2 K_1 G F D C		SW

```
44 REM *************** ESQUELET DE L'EDIFICI:pimolist          ******************
45 REM
50 DO=CR1* .4145*A*.7                    'façana 1 - Capt.transp. CRi*s*t
52 DA=CR2* 0                             'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*0                              'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                              'façana 4 - Capt.transp. CRi*s*t
58 DE=.05* .4654*A*.7                    'patis    - Capt.transp. CRi*s*t
60 DP=CR1*2.285*A*CK2*.6                 'façana 1 - Capt.opacs  CRi*s*abs*ckn
62 DD=CR2*0                              'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*0                              'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*0                              'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*0                              'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=.52* 0                             'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=(.9274*A*B)                        'superfície en planta   funció a i b
74 DU=A1*(.4145*A*K1+2.285*A*K2)                          'façana 1 - Transmissió  a
i*s*kn
76 DK=A2*0                               'façana 2 - Transmissió  ai*s*kn
78 DL=A3*0                               'façana 3 - Transmissió  ai*s*kn
80 DM=A4* 0                              'façana 4 - Transmissió  ai*s*kn
82 DH=.8*(.4654*A*K3+1.866*A*K4+.1145*A*K5+.077*B*K5+.4*A*K6+.65*B*K6)
          'patis    - Transmissió  ai*s*kn
84 DV=  0                               'terra    - Transmissió  s*kn
86 DW=.093*A*K7+4.915*B*K7+1.68*K8+1.8547*A*B*K9                              'locals
  - Transmissió  s*kn
88 DX=  0                               'coberta  - Transmissió  s*kn
89 RETURN
90 B=85.799  /A                          'valor b per S constant   (funció de a)
```

edifici: pimolist
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= .664
c= 0 d= 0 f= 0
k = 4.4 1.25 4.4 1.25 5 2.1 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .6 .1 .6 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .8 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.80	11.00	79.6	4.304	1.115	0.191	3.294
Variació a amb b constant						
a= 7.80/ 8.3 / .1						
7.80	11.00	79.6	4.304	1.115	0.191	3.294
7.90	11.00	80.6	4.304	1.111	0.191	3.304
8.00	11.00	81.6	4.304	1.108	0.191	3.313
8.10	11.00	82.6	4.304	1.104	0.191	3.323
8.20	11.00	83.7	4.304	1.100	0.191	3.332
8.30	11.00	84.7	4.304	1.097	0.191	3.341
Variació a/b per RT constant						
ratio inicial= 3.294 desviació= .01						
a= 7.80/ 8.3 / .1	b= 11 / 12 / .2					
	11.00	79.6	4.304	1.115	0.191	3.294
	11.20	85.2	4.227	1.095	0.191	3.285
	11.20	86.2	4.227	1.092	0.191	3.294
Variació a/b per S constant						
a= 7.8 / 8.3 / .1						
7.80	11.00	79.6	4.304	1.115	0.191	3.294
7.90	10.86	79.6	4.359	1.115	0.191	3.337
8.00	10.72	79.6	4.414	1.115	0.191	3.379
8.10	10.59	79.6	4.470	1.115	0.191	3.422
8.20	10.46	79.6	4.525	1.115	0.191	3.464
8.30	10.34	79.6	4.580	1.115	0.191	3.506

edifici: pimolist
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= .664
c= 0 d= 0 f= 0
k = 4.4 1.25 4.4 1.25 5 2.1 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .6 .1 .6 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 0 0 0
alfa= 1.2 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.80	11.00	79.6	0.643	1.176	0.191	0.470
Variació a amb b constant						
a= 7.80/ 8.3 / .1						
7.80	11.00	79.6	0.643	1.176	0.191	0.470
7.90	11.00	80.6	0.643	1.172	0.191	0.471
8.00	11.00	81.6	0.643	1.169	0.191	0.472
8.10	11.00	82.6	0.643	1.165	0.191	0.474
8.20	11.00	83.7	0.643	1.162	0.191	0.475
8.30	11.00	84.7	0.643	1.158	0.191	0.476
Variació a/b per RT constant						
ratio inicial= .47 desviació= .01						
a= 7.80/ 8.3 / .1	b= 11 / 12 / .2					
	11.00	79.6	0.643	1.176	0.191	0.470
	11.20	81.0	0.632	1.170	0.191	0.464
	11.00	80.6	0.643	1.172	0.191	0.471
	11.20	82.1	0.632	1.166	0.191	0.465
	11.00	81.6	0.643	1.169	0.191	0.472
	11.20	83.1	0.632	1.163	0.191	0.466
	11.40	84.6	0.621	1.157	0.191	0.460
	11.00	82.6	0.643	1.165	0.191	0.474
	11.20	84.1	0.632	1.159	0.191	0.467
	11.40	85.6	0.621	1.153	0.191	0.461
	11.00	83.7	0.643	1.162	0.191	0.475
	11.20	85.2	0.632	1.155	0.191	0.469
	11.40	86.7	0.621	1.149	0.191	0.462
	11.00	84.7	0.643	1.158	0.191	0.476
	11.20	86.2	0.632	1.152	0.191	0.470
	11.40	87.8	0.621	1.146	0.191	0.464
Variació a/b per S constant						
a= 7.8 / 8.3 / .1						
7.80	11.00	79.6	0.643	1.176	0.191	0.470
7.90	10.86	79.6	0.651	1.177	0.191	0.476
8.00	10.72	79.6	0.660	1.178	0.191	0.481
8.10	10.59	79.6	0.668	1.178	0.191	0.487
8.20	10.46	79.6	0.676	1.179	0.191	0.493
8.30	10.34	79.6	0.684	1.180	0.191	0.499

edifici: pimolist
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= .664
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 1.25 5 2.1 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .6 .1 .6 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.80	11.00	79.6	1.749	1.146	0.191	1.308
Variació a amb b constant						
a= 7.80/ 8.3 / .1						
7.80	11.00	79.6	1.749	1.146	0.191	1.308
7.90	11.00	80.6	1.749	1.142	0.191	1.312
8.00	11.00	81.6	1.749	1.138	0.191	1.315
8.10	11.00	82.6	1.749	1.135	0.191	1.319
8.20	11.00	83.7	1.749	1.131	0.191	1.322
8.30	11.00	84.7	1.749	1.127	0.191	1.326
Variació a/b per RT constant						
ratio inicial= 1.308 desviació= .01						
a= 7.80/ 8.3 / .1	b= 11 / 12 / .2					
	11.00	79.6	1.749	1.146	0.191	1.308
	11.00	80.6	1.749	1.142	0.191	1.312
	11.00	81.6	1.749	1.138	0.191	1.315
	11.20	84.1	1.718	1.129	0.191	1.301
	11.20	85.2	1.718	1.125	0.191	1.304
	11.20	86.2	1.718	1.122	0.191	1.308

Variació a/b per S constant
a= 7.8 / 8.3 / .1

7.80	11.00	79.6	1.749	1.146	0.191	1.308
7.90	10.86	79.6	1.772	1.146	0.191	1.324
8.00	10.72	79.6	1.794	1.146	0.191	1.341
8.10	10.59	79.6	1.816	1.147	0.191	1.357
8.20	10.46	79.6	1.839	1.147	0.191	1.374
8.30	10.34	79.6	1.861	1.148	0.191	1.390

Edifici: pimolist
variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= .664
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 1.25 5 2.1 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .6 .1 .6 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
cn= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 0 0
alfa= .9 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	7.80	11.00	79.6	3.320	1.130	0.191	2.511

Variació a amb b constant
a= 7.80/ 8.3 / .1

7.80	11.00	79.6	3.320	1.130	0.191	2.511
7.90	11.00	80.6	3.320	1.127	0.191	2.519
8.00	11.00	81.6	3.320	1.123	0.191	2.526
8.10	11.00	82.6	3.320	1.119	0.191	2.533
8.20	11.00	83.7	3.320	1.116	0.191	2.540
8.30	11.00	84.7.	3.320	1.112	0.191	2.547

Variació a/b per RT constant
ratio inicial= 2.511 desviació= .01
a= 7.80/ 8.3 / .1 b= 11 / 12 / .2

11.00	79.6	3.320	1.130	0.191	2.511
11.00	80.6	3.320	1.127	0.191	2.519
11.20	85.2	3.261	1.110	0.191	2.505
11.20	86.2	3.261	1.107	0.191	2.511

Variació a/b per S constant
a= 7.8 / 8.3 / .1

7.80	11.00	79.6	3.320	1.130	0.191	2.511
7.90	10.86	79.6	3.362	1.130	0.191	2.544
8.00	10.72	79.6	3.405	1.131	0.191	2.576
8.10	10.59	79.6	3.448	1.131	0.191	2.608
8.20	10.46	79.6	3.490	1.131	0.191	2.639
8.30	10.34	79.6	3.533	1.131	0.191	2.671

edifici: pimolist
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= .664
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 .4 5 .46 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .6 .1 .2 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .8 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	7.80	11.00	79.6	4.304	1.017	0.191	3.561

edifici: pimolist
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= .664
c= 0 d= 0 f= 0
kn= 4.4 .4 4.4 .4 5 .46 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .2 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 0 0 0
alfa= 1.2 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	7.80	11.00	79.6	0.357	1.002	0.191	0.298

edifici: pimolist
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= .664
c= 0 d= 0 f= 0
kn= 4.4 .4 4.4 .4 5 .46 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .2 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 0 0
alfa= 1 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	7.80	11.00	79.6	0.918	0.984	0.191	0.780

edifici: pimolist
variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= .664
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 .4 5 .46 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .6 .1 .2 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 0 0
alfa= .9 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	7.80	11.00	79.6	3.320	1.033	0.191	2.712

```
44 REM *************** ESQUELET DE L'EDIFICI:pimolist &su()  ******************
45 REM
50 DO=CR1* .4145*A*.7                'façana 1 - Capt.transp. CRi*s*t
52 DA=CR2* 0                         'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*0                          'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                          'façana 4 - Capt.transp. CRi*s*t
58 DE=.05* .4654*A*.7                'patis    - Capt.transp. CRi*s*t
60 DP=CR1*2.285*A*CK2*.6             'façana 1 - Capt.opacs  CRi*s*abs*ckn
62 DD=CR2*0                          'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*0                          'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*0                          'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*0                          'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=2.4* 0                         'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=(.9274*A*B)                    'superfície en planta   funció a i b
74 DU=A1*(.4145*A*K1+2.285*A*K2)                          'façana 1 - Transmissió
i*s*kn
76 DK=A2*0                           'façana 2 - Transmissió  ai*s*kn
78 DL=A3*0                           'façana 3 - Transmissió  ai*s*kn
80 DM=A4* 0                          'façana 4 - Transmissió  ai*s*kn
82 DH=.8*(.4654*A*K3+1.866*A*K4+.1145*A*K5+.077*B*K5+.4*A*K6+.65*B*K6)
          'patis    - Transmissió  ai*s*kn
84 DV=  0                           'terra    - Transmissió  s*kn
86 DW=.093*A*K7+4.915*B*K7+1.68*K8+1.8547*A*B*K9                              'local
  - Transmissió  s*kn
88 DX=  0                           'coberta  - Transmissió  s*kn
89 RETURN
90 B=85.79901/A                     'valor b per S constant   (funció de a)
```

edifici: pimolist
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 14.184
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 1.25 5 2.1 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.80	11.00	79.6	3.151	1.001	4.085	0.619
Variació a amb b constant						
a= 7.80/ 8.3 / .1						
7.80	11.00	79.6	3.151	1.001	4.085	0.619
7.90	11.00	80.6	3.151	0.998	4.085	0.619
8.00	11.00	81.6	3.151	0.994	4.085	0.620
8.10	11.00	82.6	3.151	0.991	4.085	0.620
8.20	11.00	83.7	3.151	0.988	4.085	0.621
8.30	11.00	84.7	3.151	0.985	4.085	0.621
Variació a/b per RT constant						
ratio inicial= .619 desviació= .01						
a= 7.80/ 8.3 / .1	b= 11 / 12 / .2					
	11.00	79.6	3.151	1.001	4.085	0.619
	11.00	80.6	3.151	0.998	4.085	0.619
	11.00	81.6	3.151	0.994	4.085	0.620
	11.00	82.6	3.151	0.991	4.085	0.620
	11.20	84.1	3.095	0.986	4.085	0.610
	11.00	83.7	3.151	0.988	4.085	0.621
	11.20	85.2	3.095	0.983	4.085	0.610
	11.00	84.7	3.151	0.985	4.085	0.621
	11.20	86.2	3.095	0.980	4.085	0.611
Variació a/b per S constant						
a= 7.8 / 8.3 / .1						
7.80	11.00	79.6	3.151	1.001	4.085	0.619
7.90	10.86	79.6	3.192	1.001	4.085	0.627
8.00	10.72	79.6	3.232	1.002	4.085	0.635
8.10	10.59	79.6	3.272	1.003	4.085	0.643
8.20	10.46	79.6	3.313	1.003	4.085	0.651
8.30	10.34	79.6	3.353	1.004	4.085	0.658

edifici: pimolist
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 2.547
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 1.25 5 2.1 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 0 0 0
alfa= .8 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.80	11.00	79.6	2.393	0.986	0.734	1.392
Variació a amb b constant						
a= 7.80/ 8.3 / .1						
7.80	11.00	79.6	2.393	0.986	0.734	1.392
7.90	11.00	80.6	2.393	0.982	0.734	1.394
8.00	11.00	81.6	2.393	0.979	0.734	1.397
8.10	11.00	82.6	2.393	0.976	0.734	1.400
8.20	11.00	83.7	2.393	0.973	0.734	1.402
8.30	11.00	84.7	2.393	0.970	0.734	1.405
Variació a/b per RT constant						
ratio inicial= 1.392 desviació= .01						
a= 7.80/ 8.3 / .1	b= 11 / 12 / .2					
	11.00	79.6	2.393	0.986	0.734	1.392
	11.00	80.6	2.393	0.982	0.734	1.394
	11.00	81.6	2.393	0.979	0.734	1.397
	11.00	82.6	2.393	0.976	0.734	1.400
	11.20	86.2	2.351	0.965	0.734	1.384
Variació a/b per S constant						
a= 7.8 / 8.3 / .1						
7.80	11.00	79.6	2.393	0.986	0.734	1.392
7.90	10.86	79.6	2.424	0.986	0.734	1.409
8.00	10.72	79.6	2.455	0.986	0.734	1.427
8.10	10.59	79.6	2.485	0.987	0.734	1.444
8.20	10.46	79.6	2.516	0.987	0.734	1.462
8.30	10.34	79.6	2.547	0.988	0.734	1.479

edifici: pimolist
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 8.449001
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 1.25 5 2.1 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.80	11.00	79.6	4.223	1.016	2.433	1.224
Variació a amb b constant						
a= 7.80/ 8.3 / .1						
7.80	11.00	79.6	4.223	1.016	2.433	1.224
7.90	11.00	80.6	4.223	1.013	2.433	1.225
8.00	11.00	81.6	4.223	1.010	2.433	1.226
8.10	11.00	82.6	4.223	1.006	2.433	1.227
8.20	11.00	83.7	4.223	1.003	2.433	1.228
8.30	11.00	84.7	4.223	1.000	2.433	1.229
Variació a/b per RT constant						
ratio inicial= 1.224 desviació= .01						
a= 7.80/ 8.3 / .1	b= 11 / 12 / .2					
	11.00	79.6	4.223	1.016	2.433	1.224
	11.00	80.6	4.223	1.013	2.433	1.225
	11.00	81.6	4.223	1.010	2.433	1.226
	11.00	82.6	4.223	1.006	2.433	1.227
	11.00	83.7	4.223	1.003	2.433	1.228
	11.00	84.7	4.223	1.000	2.433	1.229

Variació a/b per S constant
a= 7.8 / 8.3 / .1

7.80	11.00	79.6	4.223	1.016	2.433	1.224
7.90	10.86	79.6	4.277	1.017	2.433	1.239
8.00	10.72	79.6	4.331	1.018	2.433	1.254
8.10	10.59	79.6	4.385	1.019	2.433	1.270
8.20	10.46	79.6	4.439	1.019	2.433	1.285
8.30	10.34	79.6	4.493	1.020	2.433	1.301

edifici: pimolist
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 11.674
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 1.25 5 2.1 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 0 0
alfa= .95 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.80	11.00	79.6	3.918	1.009	3.362	0.896
Variació a amb b constant						
a= 7.80/ 8.3 / .1						
7.80	11.00	79.6	3.918	1.009	3.362	0.896
7.90	11.00	80.6	3.918	1.005	3.362	0.897
8.00	11.00	81.6	3.918	1.002	3.362	0.897
8.10	11.00	82.6	3.918	0.999	3.362	0.898
8.20	11.00	83.7	3.918	0.996	3.362	0.899
8.30	11.00	84.7	3.918	0.993	3.362	0.899
Variació a/b per RT constant						
ratio inicial= .896 desviació= .01						
a= 7.80/ 8.3 / .1	b= 11 / 12 / .2					
	11.00	79.6	3.918	1.009	3.362	0.896
	11.00	80.6	3.918	1.005	3.362	0.897
	11.00	81.6	3.918	1.002	3.362	0.897
	11.00	82.6	3.918	0.999	3.362	0.898
	11.00	83.7	3.918	0.996	3.362	0.899
	11.00	84.7	3.918	0.993	3.362	0.899
Variació a/b per S constant						
a= 7.8 / 8.3 / .1						
7.80	11.00	79.6	3.918	1.009	3.362	0.896
7.90	10.86	79.6	3.968	1.009	3.362	0.907
8.00	10.72	79.6	4.018	1.010	3.362	0.919
8.10	10.59	79.6	4.069	1.011	3.362	0.930
8.20	10.46	79.6	4.119	1.011	3.362	0.941
8.30	10.34	79.6	4.169	1.012	3.362	0.953

edifici: biopimolist
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 14.184
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 .4 5 .46 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .6 .1 .2 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.80	11.00	79.6	3.151	0.903	4.085	0.631

edifici: bio pimolist
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 2.547
c= 0 d= 0 f= 0
kn= 4.4 .4 4.4 .4 5 .46 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .2 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 0 0 0
alfa= .8 0 0 0

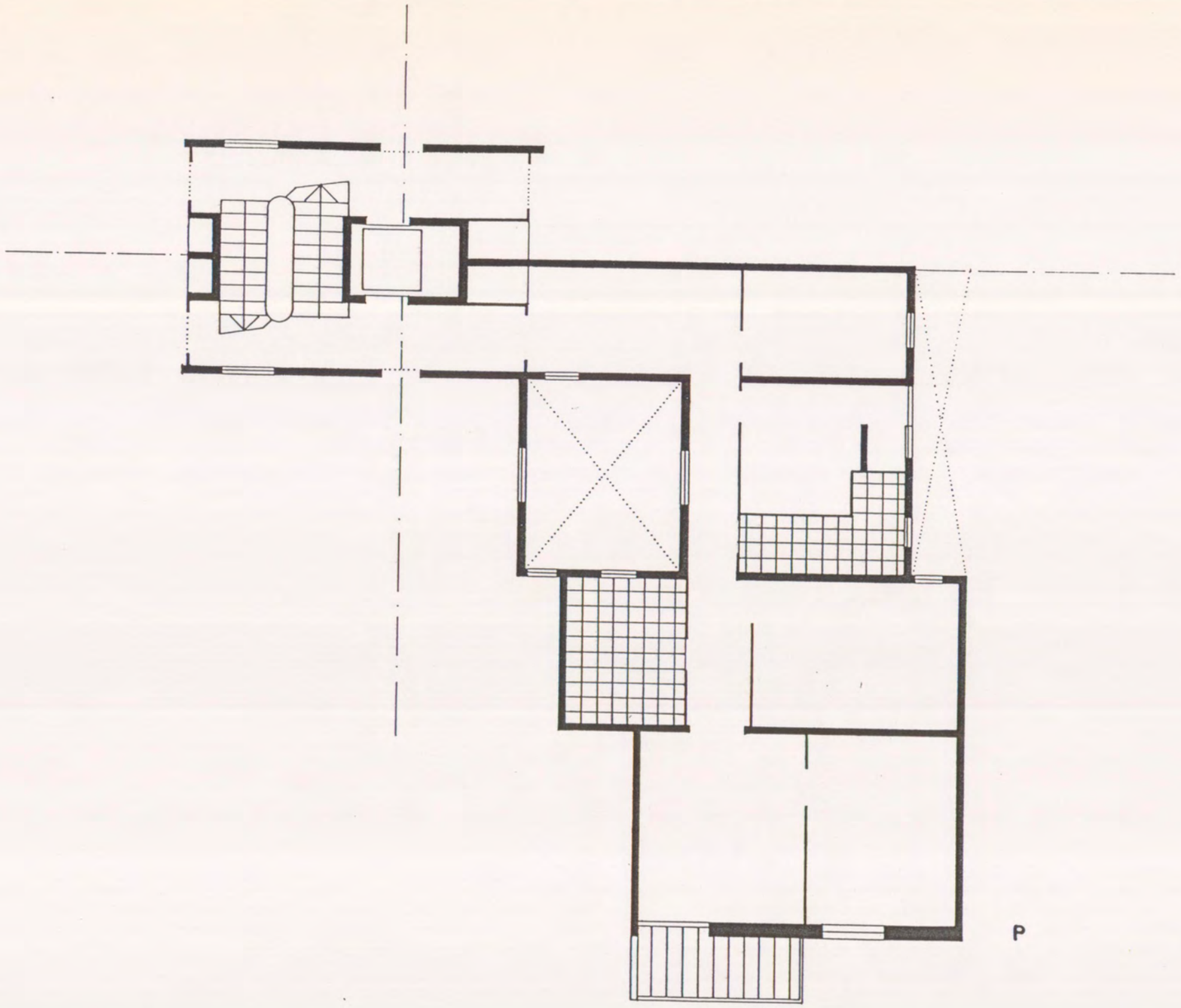
a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.80	11.00	79.6	1.236	0.837	0.734	0.787

edifici: bio pimolist
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 8.449001
c= 0 d= 0 f= 0
kn= 4.4 .4 4.4 .4 5 .46 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .2 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.80	11.00	79.6	2.164	0.855	2.433	0.658

Variació a amb b constant
edifici: bio pimolist
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 11.674
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 .4 5 .46 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .6 .1 .2 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 0 0
alfa= .95 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.80	11.00	79.6	3.918	0.911	3.362	0.916



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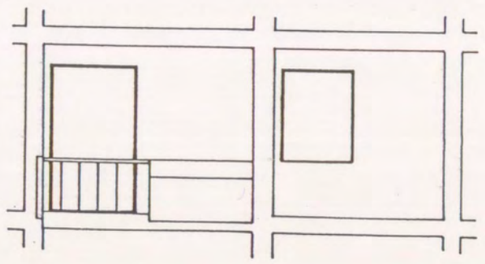


A

2.I.E.I

VIV. EN BARCELONA

A. MORAGAS, F. DE RIBA

DATOS GEOMETRICOS

a = 6,20 m	(6,20/7,00 m)
b = 12,70 m	(12,70/13,30 m)
S = 76,98 m²	V = 230,94 m3
Sl/S = 0,11	Slt/Slo = 0,70

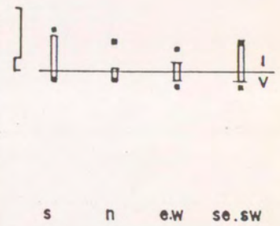
RATIOS TERMICOS (°C)

	sin aislar	aislado
invierno		
S	2,53	2,94
N	0,37	0,29
E	1,02	0,75
W	1,02	0,75
NE	1,93	2,25
SW	1,93	2,25
verano		
S	0,49	0,51
N	1,07	0,74
E	0,97	0,68
W	0,97	0,68
SE	0,71	0,75
SW	0,71	0,75

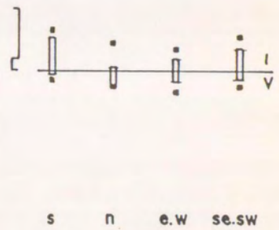
MASA TERMICA (kcal/°C m3)

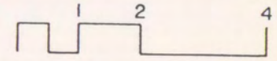
32,84	36,36

RT CON



RT SIN





BARCELONA 85-88

E.T.S.A.B. U.P.C.

TESIS · DOCTORAL · BIOCLIMATISMO Y TIPO ARQUITECTONICO EN CATALUÑA EN EL PERIODO 1930 1985 · VICTOR SEGUI SANTANA

	VIVIENDAS EN BARCELONA. A. DE MORAGAS. F. DE RIBA	21E1

CAPTORES TRANSPARENTES	1	V. SUR	S	0.677A
			t	0.7
			CR	CR1
	2	V. PATIO	S	0.361A
			t	0.7
			CR	PATIO
	3	V. PATIO	S	0.187B
			t	0.7
			CR	PATIO
	4		S	
			t	
			CR	
	5		S	
			t	
			CR	
	6		S	
			t	
			CR	
CAPTORES OPACOS	1	P. SUR	S	2.022A
			CK	CK2
			α	0.6
			CR	CR1.
	2		S	
			CK	
			α	
			CR	
	3		S	
			CK	
			α	
			CR	
	4		S	
			CK	
			α	
			CR	
	5		S	
			CK	
			α	
			CR	
	6		S	
			CK	
			α	
			CR	
	7		S	
			CK	
			α	
			CR	
	8		S	
			CK	
			α	
			CR	
	9		S	
			CK	
			α	
			CR	
CUBIERTA	1		S	
			CK	
			α	

TRANSMISION FACHADAS	1	V. SUR	S	
			K	
			K	
	2	P. SUR	S	
			K	
			K	
	3	V. PATIO 1	S	
			K	
			K	
	4	V. PATIO 2	S	
			K	
			K	
	5	V. PATIO 3	S	
			K	
			K	
	6	V. PATIO 4	S	
			K	
			K	
	7	P. PATIO 1	S	
			K	
			K	
	8	P. PATIO 2	S	
			K	
			K	
	9	P. PATIO 3	S	
			K	
			K	
	10		S	
			K	
			K	
	11		S	
			K	
			K	
	12		S	
			K	
			K	
	13		S	
			K	
			K	
	14		S	
			K	
			K	
	15		S	
			K	
			K	
	16		S	
			K	
			K	

INFILTRACIONES			S	12.74
			R	0.662
SEPARACION TERRENO	1		S	
			K	
	2		S	
			K	
SEPARACION OTROS LOCALES	1	MEDIAN 1	S	3.142 B
			K	K7
	2	MEDIAN 2	S	3.83A
			K	K7
	3	PUERTA	S	1.68
			K	K8
	4	FORJADOS	S	1.9552BA
			K	K9
	5		S	
			K	
TRANSMISION PIEL HORIZONT. CUBIERTA	1		S	
			K	
	2		S	
			K	

SUPERFICIE EN PLANTA	(0.977A.B).

	VIVIENDAS EN BARCELONA. A DE MORAGAS. F DE RIBA.	21E1

VARIABLES GEOMETRICAS	A	B	Amin.	Amax.	I	Bmin.	Bmax.	I	DESVIACION	B para S Cte.	VOLUMEN	SUPERFICIE
	6.2	12.7	6.2	7	0.1	12.7	13.5	0.1	0.01	78.79/A = B	230.94	76.98

R=2800	INVIERNO	K_1	K_2	K_3	K_4	K_5	K_6	K_7	K_8	K_9	K_{10}	K_{11}	K_{12}	K_{13}	K_{14}	K_{15}	K_{16}	K_{17}	K_{18}	VERANO	R=2050
		4.4	1.25	4.4	5	2.1	2.6	1.7	1.6	1.34											

O	RH	COEFICIENTES							COEFICIENTES DE TRANSMISION K																	COEFICIENTES							RH	O
S	0.662	CR_1	1	CR_2		CR_3		CR_4																			CR_4		CR_3		CR_2	1	CR_1	15.426	S
		K_1	0.8	K_2		K_3		K_4																			K_4		K_3		K_2	0.9	K_1		
		C		D		F		G	4.4	1.25	4.4	5	0.46	0.49	1.7	1.6	1.34										G		F		D		C		
N	0.662	CR_1	0.137	CR_2		CR_3		CR_4																			CR_4		CR_3		CR_2	0.756	CR_1	2.770	N
		K_1	1.2	K_2		K_3		K_4																			X_4		K_3		K_2	0.8	K_1		
		C		D		F		G	4.4	0.4	4.4	5	0.46	0.49	1.7	1.6	1.34										G		F		D		C		
E	0.662	CR_1	0.3977	CR_2		CR_3		CR_4																			CR_4		CR_3		CR_2	1.345	CR_1	9.189	E
		K_1	1	K_2		K_3		K_4																			K_4		K_3		K_2	1	K_1		
		C		D		F		G	4.4	0.4	4.4	5	0.46	0.49	1.7	1.6	1.34										G		F		D		C		
W		CR_1		CR_2		CR_3		CR_4																			CR_4		CR_3		CR_2		CR_1		W
		K_1		K_2		K_3		K_4																			K_4		K_3		K_2		K_1		
		C		D		F		G																			G		F		D		C		
SE	0.662	CR_1	0.768	CR_2		CR_3		CR_4																			CR_4		CR_3		CR_2	1.2469	CR_1	12.696	SE
		K_1	0.9	K_2		K_3		K_4																			K_4		K_3		K_2	0.95	K_1		
		C		D		F		G	4.4	1.25	4.4	5	0.46	0.49	1.7	1.6	1.34										G		F		D		C		
SW		CR_1		CR_2		CR_3		CR_4																			CR_4		CR_3		CR_2		CR_1		SW
		K_1		K_2		K_3		K_4																			K_4		K_3		K_2		K_1		
		C		D		F		G																			G		F		D		C		

```
44 REM ************** ESQUELET DE L'EDIFICI:moragas          ******************
45 REM
50 DO=CR1*.677*A*.7                          'façana 1 - Capt.transp. CRi*s*t
52 DA=CR2*O                                 'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*O                                 'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*O                                 'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*(.361*A*.7+.187*B*.7)                          'patis    - Capt.transp. CR
i*s*t
60 DP=CR1*2.022*A*CK2*.6                          'façana 1 - Capt.opacs  CRi*s*abs*
ckn
62 DD=CR2*O                                 'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*O                                 'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*O                                 'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*O                                 'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=.52*O                                'coberta   - Capt.opacs  CRi*s*abs*ckn
72 DQ=.977*A*B                           'superficie en planta   funció a i b
74 DU=A1*(.677*A*K1+2.022*A*K2)                          'façana 1 - Transmissió  a
i*s*kn
76 DK=A2*O                                  'façana 2 - Transmissió  ai*s*kn
78 DL=A3*O                                  'façana 3 - Transmissió  ai*s*kn
80 DM=A4*O                                  'façana 4 - Transmissió  ai*s*kn
82 DH=.8*(.077*B*K3+.135*A*K3+.226*A*K4+.2866*B*K4+2.3822*A*K5+1.436*B*K5+.2622*
B*K6)                                 'patis    - Transmissió  ai*s*kn
84 DV=O                                     'terra    - Transmissió  s*kn
86 DW=(3.142*B*K7+3.83*A*K7+1.68*K8+1.9552*B*A*K9)                          'loc
als   - Transmissió  s*kn
88 DX=O                                     'coberta  - Transmissió  s*kn
89 RETURN
90 B=78.79/A                                'valor b per S constant   (funció de a)
```

edifici: moragas
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= .662
c= 0 d= 0 f= 0
kr 4.4 1.25 4.4 5 2.1 2.6 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .6 .1 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .8 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
6.20	12.70	76.9	3.848	1.328	0.191	2.533
Variació a amb b constant						
a= 6.20/ 7 / .1						
6.20	12.70	76.9	3.848	1.328	0.191	2.533
6.30	12.70	78.2	3.848	1.322	0.191	2.544
6.40	12.70	79.4	3.847	1.315	0.191	2.554
6.50	12.70	80.7	3.846	1.309	0.191	2.565
6.60	12.70	81.9	3.846	1.303	0.191	2.575
6.70	12.70	83.1	3.845	1.297	0.191	2.585
6.80	12.70	84.4	3.845	1.291	0.191	2.595
6.90	12.70	85.6	3.844	1.285	0.191	2.604
7.00	12.70	86.9	3.844	1.280	0.191	2.613
Variació a/b per RT constant						
ratio inicial= 2.533 desviació= .01						
a= 6.20/ 7 / .1	b= 12.7 / 13.5 / .1					
	12.70	76.9	3.848	1.328	0.191	2.533
	12.80	78.8	3.818	1.319	0.191	2.529
	12.80	80.0	3.817	1.312	0.191	2.540
	12.90	80.7	3.788	1.309	0.191	2.525
	12.90	81.9	3.787	1.303	0.191	2.535
	13.00	83.8	3.758	1.294	0.191	2.531
	13.00	85.1	3.757	1.288	0.191	2.541
	13.10	85.8	3.729	1.285	0.191	2.526
	13.10	87.0	3.728	1.279	0.191	2.536
	13.20	89.0	3.700	1.271	0.191	2.531
	13.20	90.3	3.699	1.266	0.191	2.540
	13.30	91.0	3.672	1.263	0.191	2.526
Variació a/b per S constant						
a= 6.2 / 7 / .1						
6.20	12.71	77.0	3.846	1.328	0.191	2.532
6.30	12.51	77.0	3.907	1.327	0.191	2.573
6.40	12.31	77.0	3.967	1.327	0.191	2.614
6.50	12.12	77.0	4.028	1.327	0.191	2.654
6.60	11.94	77.0	4.089	1.327	0.191	2.695
6.70	11.76	77.0	4.150	1.327	0.191	2.734
6.80	11.59	77.0	4.210	1.327	0.191	2.774
6.90	11.42	77.0	4.271	1.327	0.191	2.813
7.00	11.26	77.0	4.332	1.328	0.191	2.852

edifici: moragas
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= .662
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 5 2.1 2.6 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .6 .1 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 0 0 0
alfa= 1.2 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
6.20	12.70	76.9	0.598	1.387	0.191	0.378
Variació a amb b constant						
a= 6.20/ 7 / .1						
6.20	12.70	76.9	0.598	1.387	0.191	0.378
6.30	12.70	78.2	0.597	1.381	0.191	0.379
6.40	12.70	79.4	0.596	1.374	0.191	0.381
6.50	12.70	80.7	0.596	1.368	0.191	0.382
6.60	12.70	81.9	0.595	1.362	0.191	0.383
6.70	12.70	83.1	0.595	1.356	0.191	0.384
6.80	12.70	84.4	0.594	1.350	0.191	0.385
6.90	12.70	85.6	0.593	1.344	0.191	0.386
7.00	12.70	86.9	0.593	1.339	0.191	0.387
Variació a/b per RT constant						
ratio inicial= .378 desviació= .01						
a= 6.20/ 7 / .1	b= 12.7 / 13.5 / .1					
	12.70	76.9	0.598	1.387	0.191	0.378
	12.80	77.5	0.593	1.384	0.191	0.376
	12.90	78.1	0.589	1.381	0.191	0.374
	13.00	78.7	0.585	1.377	0.191	0.372
	13.10	79.4	0.581	1.374	0.191	0.371
	13.20	80.0	0.577	1.371	0.191	0.369
	12.70	78.2	0.597	1.381	0.191	0.379
	12.80	78.8	0.593	1.377	0.191	0.377
	12.90	79.4	0.588	1.374	0.191	0.376
	13.00	80.0	0.584	1.371	0.191	0.374
	13.10	80.6	0.580	1.367	0.191	0.372
	13.20	81.2	0.576	1.364	0.191	0.370
	13.30	81.9	0.572	1.361	0.191	0.368
	12.70	79.4	0.596	1.374	0.191	0.381
	12.80	80.0	0.592	1.371	0.191	0.379
	12.90	80.7	0.588	1.367	0.191	0.377
	13.00	81.3	0.584	1.364	0.191	0.375
	13.10	81.9	0.579	1.361	0.191	0.373
	13.20	82.5	0.575	1.358	0.191	0.371
	13.30	83.2	0.571	1.355	0.191	0.369
	12.70	80.7	0.596	1.368	0.191	0.382
	12.80	81.3	0.591	1.365	0.191	0.380
	12.90	81.9	0.587	1.361	0.191	0.378
	13.00	82.6	0.583	1.358	0.191	0.376
	13.10	83.2	0.579	1.355	0.191	0.374
	13.20	83.8	0.575	1.351	0.191	0.372
	13.30	84.5	0.571	1.348	0.191	0.370
	13.40	85.1	0.567	1.345	0.191	0.368
	12.70	81.9	0.595	1.362	0.191	0.383
	12.80	82.5	0.591	1.358	0.191	0.381
	12.90	83.2	0.587	1.355	0.191	0.379
	13.00	83.8	0.582	1.352	0.191	0.377
	13.10	84.5	0.578	1.349	0.191	0.375
	13.20	85.1	0.574	1.345	0.191	0.373
	13.30	85.8	0.570	1.342	0.191	0.371
	13.40	86.4	0.566	1.339	0.191	0.370
	13.50	87.1	0.562	1.336	0.191	0.368
	12.70	83.1	0.595	1.356	0.191	0.384
	12.80	83.8	0.590	1.352	0.191	0.382
	12.90	84.4	0.586	1.349	0.191	0.380
	13.00	85.1	0.582	1.346	0.191	0.378
	13.10	85.8	0.578	1.343	0.191	0.376
	13.20	86.4	0.573	1.339	0.191	0.374
	13.30	87.1	0.569	1.336	0.191	0.372
	13.40	87.7	0.566	1.333	0.191	0.371
	13.50	88.4	0.562	1.330	0.191	0.369
	12.70	84.4	0.594	1.350	0.191	0.385

	12.80	85.0	0.590	1.347	0.191	0.383
	12.90	85.7	0.585	1.343	0.191	0.381
	13.00	86.4	0.581	1.340	0.191	0.379
	13.10	87.0	0.577	1.337	0.191	0.377
	13.20	87.7	0.573	1.334	0.191	0.375
	13.30	88.4	0.569	1.330	0.191	0.373
	13.40	89.0	0.565	1.327	0.191	0.372
	13.50	89.7	0.561	1.324	0.191	0.370
	12.70	85.6	0.593	1.344	0.191	0.386
	12.80	86.3	0.589	1.341	0.191	0.384
	12.90	87.0	0.585	1.338	0.191	0.382
	13.00	87.6	0.581	1.334	0.191	0.380
	13.10	88.3	0.576	1.331	0.191	0.378
	13.20	89.0	0.572	1.328	0.191	0.376
	13.30	89.7	0.568	1.325	0.191	0.375
	13.40	90.3	0.564	1.322	0.191	0.373
	13.50	91.0	0.560	1.319	0.191	0.371
	12.70	86.9	0.593	1.339	0.191	0.387
	12.80	87.5	0.589	1.336	0.191	0.385
	12.90	88.2	0.584	1.332	0.191	0.383
	13.00	88.9	0.580	1.329	0.191	0.381
	13.10	89.6	0.576	1.326	0.191	0.379
	13.20	90.3	0.572	1.323	0.191	0.377
	13.30	91.0	0.568	1.319	0.191	0.375
	13.40	91.6	0.564	1.316	0.191	0.374
	13.50	92.3	0.560	1.313	0.191	0.372

ariació a/b per S constant
= 6.2 / 7 / .1

6.20	12.71	77.0	0.597	1.387	0.191	0.378
6.30	12.51	77.0	0.606	1.387	0.191	0.383
6.40	12.31	77.0	0.614	1.388	0.191	0.388
6.50	12.12	77.0	0.622	1.389	0.191	0.394
6.60	11.94	77.0	0.631	1.389	0.191	0.399
6.70	11.76	77.0	0.639	1.390	0.191	0.404
6.80	11.59	77.0	0.647	1.392	0.191	0.409
6.90	11.42	77.0	0.656	1.393	0.191	0.414
7.00	11.26	77.0	0.664	1.395	0.191	0.418

difici: moragas
ariant 3 orientació principal=este y oeste HIVERN
v 2800 D= 0 rh= .662
= 0 d= 0 f= 0
n= 4.4 1.25 4.4 5 2.1 2.6 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0
0
kn= .1 .6 .1 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
n= 0 0 0 0 0 0 0 0 0 0
r= .3977 0 0 0
lfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.

di ici original

6.20	12.70	76.9	1.580	1.358	0.191	1.020

ariació a amb b constant
= 6.20/ 7 / .1

6.20	12.70	76.9	1.580	1.358	0.191	1.020
6.30	12.70	78.2	1.579	1.351	0.191	1.024
6.40	12.70	79.4	1.578	1.345	0.191	1.028
6.50	12.70	80.7	1.578	1.338	0.191	1.031
6.60	12.70	81.9	1.577	1.332	0.191	1.035
6.70	12.70	83.1	1.577	1.326	0.191	1.039
6.80	12.70	84.4	1.576	1.320	0.191	1.042
6.90	12.70	85.6	1.575	1.315	0.191	1.046
7.00	12.70	86.9	1.575	1.309	0.191	1.049

Variació a/b per RT constant
ratio inicial= 1.02 desviació= .01
a= 6.20/ 7 / .1 b= 12.7 / 13.5 / .1

12.70	76.9	1.580	1.358	0.191	1.020
12.80	77.5	1.568	1.355	0.191	1.014
12.70	78.2	1.579	1.351	0.191	1.024
12.80	78.8	1.567	1.348	0.191	1.018
12.90	79.4	1.555	1.345	0.191	1.012
12.70	79.4	1.578	1.345	0.191	1.028
12.80	80.0	1.566	1.341	0.191	1.022
12.90	80.7	1.555	1.338	0.191	1.016
13.00	81.3	1.543	1.335	0.191	1.011
12.80	81.3	1.566	1.335	0.191	1.026
12.90	81.9	1.554	1.332	0.191	1.020
13.00	82.6	1.542	1.329	0.191	1.014
12.80	82.5	1.565	1.329	0.191	1.029
12.90	83.2	1.553	1.326	0.191	1.024
13.00	83.8	1.542	1.323	0.191	1.018
13.10	84.5	1.530	1.320	0.191	1.013
12.90	84.4	1.553	1.320	0.191	1.027
13.00	85.1	1.541	1.317	0.191	1.022
13.10	85.8	1.530	1.314	0.191	1.016
13.20	86.4	1.518	1.311	0.191	1.011
13.00	86.4	1.540	1.311	0.191	1.025
13.10	87.0	1.529	1.308	0.191	1.020
13.20	87.7	1.518	1.305	0.191	1.014
13.00	87.6	1.540	1.306	0.191	1.029
13.10	88.3	1.528	1.303	0.191	1.023
13.20	89.0	1.517	1.300	0.191	1.018
13.30	89.7	1.506	1.297	0.191	1.012
13.10	89.6	1.528	1.297	0.191	1.026
13.20	90.3	1.517	1.294	0.191	1.021
13.30	91.0	1.505	1.291	0.191	1.015

Variació a/b per S constant
a= 6.2 / 7 / .1

6.20	12.71	77.0	1.579	1.358	0.191	1.019
6.30	12.51	77.0	1.603	1.357	0.191	1.035
6.40	12.31	77.0	1.627	1.357	0.191	1.050
6.50	12.12	77.0	1.651	1.358	0.191	1.066
6.60	11.94	77.0	1.675	1.358	0.191	1.081
6.70	11.76	77.0	1.699	1.359	0.191	1.097
6.80	11.59	77.0	1.724	1.359	0.191	1.112
6.90	11.42	77.0	1.748	1.360	0.191	1.127
7.00	11.26	77.0	1.772	1.361	0.191	1.141

edifici: moragas
variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= .662
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 5 2.1 2.6 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .6 .1 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.

Edifici original

6.20	12.70	76.9	2.974	1.343	0.191	1.939

Variació a amb b constant
a= 6.20/ 7 / .1

6.20	12.70	76.9	2.974	1.343	0.191	1.939
6.30	12.70	78.2	2.974	1.336	0.191	1.947
6.40	12.70	79.4	2.973	1.330	0.191	1.955
6.50	12.70	80.7	2.973	1.324	0.191	1.963
6.60	12.70	81.9	2.972	1.317	0.191	1.970
6.70	12.70	83.1	2.971	1.311	0.191	1.978
6.80	12.70	84.4	2.971	1.306	0.191	1.985
6.90	12.70	85.6	2.970	1.300	0.191	1.992
7.00	12.70	86.9	2.970	1.295	0.191	1.999

Variació a/b per RT constant
ratio inicial= 1.939 desviació= .01
a= 6.20/ 7 / .1 b= 12.7 / 13.5 / .1

12.70	76.9	2.974	1.343	0.191	1.939
12.70	78.2	2.974	1.336	0.191	1.947
12.80	78.8	2.951	1.333	0.191	1.936
12.80	80.0	2.950	1.327	0.191	1.944
12.90	80.7	2.928	1.324	0.191	1.933
12.90	81.9	2.927	1.317	0.191	1.940
12.90	83.2	2.926	1.311	0.191	1.948
13.00	83.8	2.904	1.308	0.191	1.937
13.00	85.1	2.904	1.302	0.191	1.944
13.10	85.8	2.882	1.300	0.191	1.933
13.10	87.0	2.881	1.294	0.191	1.940
13.20	87.7	2.860	1.291	0.191	1.930
13.10	88.3	2.881	1.288	0.191	1.947
13.20	89.0	2.859	1.285	0.191	1.937
13.20	90.3	2.859	1.280	0.191	1.943
13.30	91.0	2.837	1.277	0.191	1.933

Variació a/b per S constant
a= 6.2 / 7 / .1

6.20	12.71	77.0	2.973	1.343	0.191	1.938
6.30	12.51	77.0	3.019	1.342	0.191	1.969
6.40	12.31	77.0	3.066	1.342	0.191	2.000
6.50	12.12	77.0	3.112	1.342	0.191	2.030
6.60	11.94	77.0	3.159	1.342	0.191	2.060
6.70	11.76	77.0	3.206	1.343	0.191	2.090
6.80	11.59	77.0	3.253	1.343	0.191	2.120
6.90	11.42	77.0	3.299	1.344	0.191	2.150
7.00	11.26	77.0	3.346	1.345	0.191	2.179

edifici: moragas BIO
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= .662
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 5 .46 .49 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .6 .1 .1 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .8 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
6.20	12.70	76.9	3.848	1.116	0.191	2.944

edifici: moragas
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= .662
c= 0 d= 0 f= 0
kn= 4.4 .4 4.4 5 .46 .49 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .1 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 0 0 0
alfa= 1.2 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
6.20	12.70	76.9	0.389	1.120	0.191	0.297

edifici: moragas
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= .662
c= 0 d= 0 f= 0
kn= 4.4 .4 4.4 5 .46 .49 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .1 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
6.20	12.70	76.9	0.975	1.100	0.191	0.755

edifici: moragas
variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= .662
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 5 .46 .49 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .6 .1 .1 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
6.20	12.70	76.9	2.974	1.131	0.191	2.250

```
44 REM *************** ESQUELET DE L'EDIFICI:moragas ESAV!  ******************
45 REM
50 DO=CR1*.677*A*.7                          'façana 1 - Capt.transp. CRi*s*t
52 DA=CR2*0                                  'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*0                                  'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                                  'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*(.361*A*.7+.187*B*.7)                          'patis    - Capt.transp. C
i*s*t
60 DP=CR1*2.022*A*CK2*.6                          'façana 1 - Capt.opacs  CRi*s*abs
ckn
62 DD=CR2*0                                  'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*0                                  'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*0                                  'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*0                                  'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=2.4*0                                  'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=.977*A*B                              'superficie en planta   funció a i b
74 DU=A1*(.677*A*K1+2.022*A*K2)                          'façana 1 - Transmissió
i*s*kn
76 DK=A2*0                                   'façana 2 - Transmissió  ai*s*kn
78 DL=A3*0                                   'façana 3 - Transmissió  ai*s*kn
80 DM=A4*0                                   'façana 4 - Transmissió  ai*s*kn
82 DH=.8*(.077*B*K3+.135*A*K3+.226*A*K4+.2866*B*K4+2.3822*A*K5+1.436*B*K5+.262
B*K6)                                'patis    - Transmissió  ai*s*kn
84 DV=0                                      'terra    - Transmissió  s*kn
86 DW=(3.142*B*K7+3.83*A*K7+1.68*K8+1.9552*B*A*K9)                          'l
als   - Transmissió  s*kn
88 DX=0                                      'coberta  - Transmissió  s*kn
89 RETURN
90 B=78.79/A                                 'valor b per S constant   (funció de a)
```

edifici: moragas
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 15.426
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 5 2.1 2.6 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0

ckn= .1 .6 .1 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
6.20	12.70	76.9	2.818	1.206	4.443	0.498
Variació a amb b constant						
a= 6.20/ 7 / .1						
6.20	12.70	76.9	2.818	1.206	4.443	0.498
6.30	12.70	78.2	2.817	1.199	4.443	0.499
6.40	12.70	79.4	2.817	1.193	4.443	0.499
6.50	12.70	80.7	2.816	1.187	4.443	0.500
6.60	12.70	81.9	2.816	1.182	4.443	0.500
6.70	12.70	83.1	2.815	1.176	4.443	0.501
6.80	12.70	84.4	2.815	1.171	4.443	0.501
6.90	12.70	85.6	2.814	1.166	4.443	0.501
7.00	12.70	86.9	2.814	1.161	4.443	0.502
Variació a/b per RT constant						
ratio inicial= .498 desviació= .01						
a= 6.20/ 7 / .1	b= 12.7 / 13.5 / .1					
	12.70	76.9	2.818	1.206	4.443	0.498
	12.80	77.5	2.796	1.203	4.443	0.495
	12.90	78.1	2.774	1.200	4.443	0.491
	13.00	78.7	2.753	1.197	4.443	0.488
	12.70	78.2	2.817	1.199	4.443	0.499
	12.80	78.8	2.795	1.197	4.443	0.495
	12.90	79.4	2.774	1.194	4.443	0.492
	13.00	80.0	2.753	1.191	4.443	0.488
	12.70	79.4	2.817	1.193	4.443	0.499
	12.80	80.0	2.795	1.190	4.443	0.496
	12.90	80.7	2.773	1.188	4.443	0.492
	13.00	81.3	2.752	1.185	4.443	0.489
	12.70	80.7	2.816	1.187	4.443	0.500
	12.80	81.3	2.794	1.185	4.443	0.496
	12.90	81.9	2.773	1.182	4.443	0.493
	13.00	82.6	2.752	1.179	4.443	0.489
	12.70	81.9	2.816	1.182	4.443	0.500
	12.80	82.5	2.794	1.179	4.443	0.496
	12.90	83.2	2.772	1.176	4.443	0.493
	13.00	83.8	2.751	1.173	4.443	0.489
	12.70	83.1	2.815	1.176	4.443	0.501
	12.80	83.8	2.793	1.173	4.443	0.497
	12.90	84.4	2.772	1.171	4.443	0.493
	13.00	85.1	2.751	1.168	4.443	0.490
	12.70	84.4	2.815	1.171	4.443	0.501
	12.80	85.0	2.793	1.168	4.443	0.497
	12.90	85.7	2.772	1.165	4.443	0.494
	13.00	86.4	2.751	1.162	4.443	0.490
	12.70	85.6	2.814	1.166	4.443	0.501
	12.80	86.3	2.793	1.163	4.443	0.498
	12.90	87.0	2.771	1.160	4.443	0.494
	13.00	87.6	2.750	1.157	4.443	0.491
	12.70	86.9	2.814	1.161	4.443	0.502
	12.80	87.5	2.792	1.158	4.443	0.498
	12.90	88.2	2.771	1.155	4.443	0.495
	13.00	88.9	2.750	1.152	4.443	0.491
	13.10	89.6	2.729	1.149	4.443	0.488

Variació a/b per S constant
a= 6.2 / 7 / .1

6.20	12.71	77.0	2.816	1.205	4.443	0.498
6.30	12.51	77.0	2.860	1.205	4.443	0.506
6.40	12.31	77.0	2.905	1.205	4.443	0.514
6.50	12.12	77.0	2.949	1.205	4.443	0.522
6.60	11.94	77.0	2.994	1.205	4.443	0.530
6.70	11.76	77.0	3.038	1.206	4.443	0.537
6.80	11.59	77.0	3.082	1.207	4.443	0.545
6.90	11.42	77.0	3.127	1.207	4.443	0.553
7.00	11.26	77.0	3.172	1.208	4.443	0.561

edifici: moragas
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 2.77
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 5 2.1 2.6 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0

ckn= .1 .6 .1 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 0 0 0
alfa= .8 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
6.20	12.70	76.9	2.145	1.191	0.798	1.078
Variació a amb b.constant						
a= 6.20/ 7 / .1						
6.20	12.70	76.9	2.145	1.191	0.798	1.078
6.30	12.70	78.2	2.144	1.185	0.798	1.081
6.40	12.70	79.4	2.144	1.179	0.798	1.084
6.50	12.70	80.7	2.143	1.173	0.798	1.087
6.60	12.70	81.9	2.143	1.167	0.798	1.090
6.70	12.70	83.1	2.142	1.161	0.798	1.093
6.80	12.70	84.4	2.142	1.156	0.798	1.096
6.90	12.70	85.6	2.142	1.151	0.798	1.098
7.00	12.70	86.9	2.141	1.146	0.798	1.101
Variació a/b per RT constant						
ratio inicial= 1.078 desviació= .01						
a= 6.20/ 7 / .1	b= 12.7 / 13.5 / .1					
	12.70	76.9	2.145	1.191	0.798	1.078
	12.80	77.5	2.128	1.188	0.798	1.071
	12.70	78.2	2.144	1.185	0.798	1.081
	12.80	78.8	2.128	1.182	0.798	1.074
	12.70	79.4	2.144	1.179	0.798	1.084
	12.80	80.0	2.127	1.176	0.798	1.077
	12.90	80.7	2.111	1.173	0.798	1.071
	12.70	80.7	2.143	1.173	0.798	1.087
	12.80	81.3	2.127	1.170	0.798	1.080
	12.90	81.9	2.110	1.167	0.798	1.074
	12.80	82.5	2.126	1.164	0.798	1.083
	12.90	83.2	2.110	1.161	0.798	1.076
	13.00	83.8	2.094	1.159	0.798	1.070
	12.80	83.8	2.126	1.159	0.798	1.086
	12.90	84.4	2.110	1.156	0.798	1.079
	13.00	85.1	2.094	1.153	0.798	1.073
	12.90	85.7	2.109	1.151	0.798	1.082
	13.00	86.4	2.093	1.148	0.798	1.075
	13.10	87.0	2.077	1.145	0.798	1.069
	12.90	87.0	2.109	1.145	0.798	1.085
	13.00	87.6	2.093	1.143	0.798	1.078
	13.10	88.3	2.077	1.140	0.798	1.071
	12.90	88.2	2.108	1.140	0.798	1.087
	13.00	88.9	2.092	1.138	0.798	1.081
	13.10	89.6	2.077	1.135	0.798	1.074

Variació a/b per S constant
a= 6.2 / 7 / .1

6.20	12.71	77.0	2.143	1.191	0.798	1.077
6.30	12.51	77.0	2.177	1.190	0.798	1.095
6.40	12.31	77.0	2.210	1.190	0.798	1.112
6.50	12.12	77.0	2.244	1.190	0.798	1.129
6.60	11.94	77.0	2.278	1.190	0.798	1.146
6.70	11.76	77.0	2.311	1.190	0.798	1.162
6.80	11.59	77.0	2.345	1.190	0.798	1.179
6.90	11.42	77.0	2.379	1.191	0.798	1.196
7.00	11.26	77.0	2.412	1.192	0.798	1.212

edifici: moragas
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 9.189
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 5 2.1 2.6 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.

Edifici original

6.20	12.70	76.9	3.769	1.220	2.646	0.974

Variació a amb b constant
a= 6.20/ 7 / .1

6.20	12.70	76.9	3.769	1.220	2.646	0.974
6.30	12.70	78.2	3.769	1.214	2.646	0.976
6.40	12.70	79.4	3.768	1.208	2.646	0.977
6.50	12.70	80.7	3.768	1.202	2.646	0.978
6.60	12.70	81.9	3.767	1.197	2.646	0.980
6.70	12.70	83.1	3.767	1.191	2.646	0.981
6.80	12.70	84.4	3.766	1.186	2.646	0.982
6.90	12.70	85.6	3.766	1.181	2.646	0.984
7.00	12.70	86.9	3.765	1.175	2.646	0.985

Variació a/b per RT constant
ratio inicial= .974 desviació= .01
a= 6.20/ 7 / .1 b= 12.7 / 13.5 / .1

12.70	76.9	3.769	1.220	2.646	0.974
12.80	77.5	3.740	1.217	2.646	0.967
12.70	78.2	3.769	1.214	2.646	0.976
12.80	78.8	3.739	1.211	2.646	0.969
12.70	79.4	3.768	1.208	2.646	0.977
12.80	80.0	3.739	1.205	2.646	0.970
12.70	80.7	3.768	1.202	2.646	0.978
12.80	81.3	3.738	1.199	2.646	0.972
12.90	81.9	3.710	1.196	2.646	0.965
12.70	81.9	3.767	1.197	2.646	0.980
12.80	82.5	3.738	1.194	2.646	0.973
12.90	83.2	3.709	1.191	2.646	0.966
12.70	83.1	3.767	1.191	2.646	0.981
12.80	83.8	3.737	1.188	2.646	0.974
12.90	84.4	3.709	1.185	2.646	0.967
12.70	84.4	3.766	1.186	2.646	0.982
12.80	85.0	3.737	1.183	2.646	0.975
12.90	85.7	3.708	1.180	2.646	0.969
12.80	86.3	3.737	1.178	2.646	0.977
12.90	87.0	3.708	1.175	2.646	0.970
12.80	87.5	3.736	1.172	2.646	0.978
12.90	88.2	3.708	1.169	2.646	0.971

Variació a/b per S constant
a= 6.2 / 7 / .1

6.20	12.71	77.0	3.767	1.220	2.646	0.974
6.30	12.51	77.0	3.826	1.220	2.646	0.989
6.40	12.31	77.0	3.886	1.220	2.646	1.005
6.50	12.12	77.0	3.946	1.221	2.646	1.020
6.60	11.94	77.0	4.006	1.221	2.646	1.035
6.70	11.76	77.0	4.066	1.222	2.646	1.051
6.80	11.59	77.0	4.125	1.223	2.646	1.066
6.90	11.42	77.0	4.185	1.224	2.646	1.081
7.00	11.26	77.0	4.245	1.225	2.646	1.096

edifici: moragas
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 12.696
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 5 2.1 2.6 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .1 .1 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 0 0
alfa= .95 0 0 0

a	b	S	I	Gt	Gv	R.T.

Edifici original

6.20	12.70	76.9	3.498	1.213	3.656	0.718

Variació a amb b constant
a= 6.20/ 7 / .1

6.20	12.70	76.9	3.498	1.213	3.656	0.718
6.30	12.70	78.2	3.498	1.207	3.656	0.719
6.40	12.70	79.4	3.497	1.201	3.656	0.720
6.50	12.70	80.7	3.497	1.195	3.656	0.720
6.60	12.70	81.9	3.497	1.189	3.656	0.721
6.70	12.70	83.1	3.496	1.184	3.656	0.722
6.80	12.70	84.4	3.496	1.178	3.656	0.723
6.90	12.70	85.6	3.495	1.173	3.656	0.723
7.00	12.70	86.9	3.495	1.168	3.656	0.724

Variació a/b per RT constant
ratio inicial= .718 desviació= .01
a= 6.20/ 7 / .1 b= 12.7 / 13.5 / .1

12.70	76.9	3.498	1.213	3.656	0.718
12.80	77.5	3.471	1.210	3.656	0.713
12.70	78.2	3.498	1.207	3.656	0.719
12.80	78.8	3.471	1.204	3.656	0.714
12.90	79.4	3.444	1.201	3.656	0.709
12.70	79.4	3.497	1.201	3.656	0.720
12.80	80.0	3.470	1.198	3.656	0.714
12.90	80.7	3.444	1.195	3.656	0.709
12.70	80.7	3.497	1.195	3.656	0.720
12.80	81.3	3.470	1.192	3.656	0.715
12.90	81.9	3.443	1.189	3.656	0.710
12.70	81.9	3.497	1.189	3.656	0.721
12.80	82.5	3.470	1.186	3.656	0.716
12.90	83.2	3.443	1.183	3.656	0.711
12.70	83.1	3.496	1.184	3.656	0.722
12.80	83.8	3.469	1.181	3.656	0.717
12.90	84.4	3.442	1.178	3.656	0.712
12.70	84.4	3.496	1.178	3.656	0.723
12.80	85.0	3.469	1.175	3.656	0.717
12.90	85.7	3.442	1.172	3.656	0.712
12.70	85.6	3.495	1.173	3.656	0.723
12.80	86.3	3.468	1.170	3.656	0.718
12.90	87.0	3.442	1.167	3.656	0.713
12.70	86.9	3.495	1.168	3.656	0.724
12.80	87.5	3.468	1.165	3.656	0.719
12.90	88.2	3.441	1.162	3.656	0.714
13.00	88.9	3.415	1.159	3.656	0.709

Variació a/b per S constant
a= 6.2 / 7 / .1

6.20	12.71	77.0	3.496	1.213	3.656	0.718
6.30	12.51	77.0	3.552	1.213	3.656	0.729
6.40	12.31	77.0	3.607	1.213	3.656	0.740
6.50	12.12	77.0	3.663	1.213	3.656	0.752
6.60	11.94	77.0	3.718	1.213	3.656	0.763
6.70	11.76	77.0	3.773	1.214	3.656	0.774
6.80	11.59	77.0	3.829	1.215	3.656	0.786
6.90	11.42	77.0	3.884	1.216	3.656	0.797
7.00	11.26	77.0	3.940	1.217	3.656	0.808

edifici: bio moragas
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 15.426
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 5 .46 .49 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .6 .1 .1 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
6.20	12.70	76.9	2.818	0.994	4.443	0.518

edifici: bio moragas
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 2.77
c= 0 d= 0 f= 0
kn= 4.4 .4 4.4 5 .46 .49 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .1 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 0 0 0
alfa= .8 0 0 0

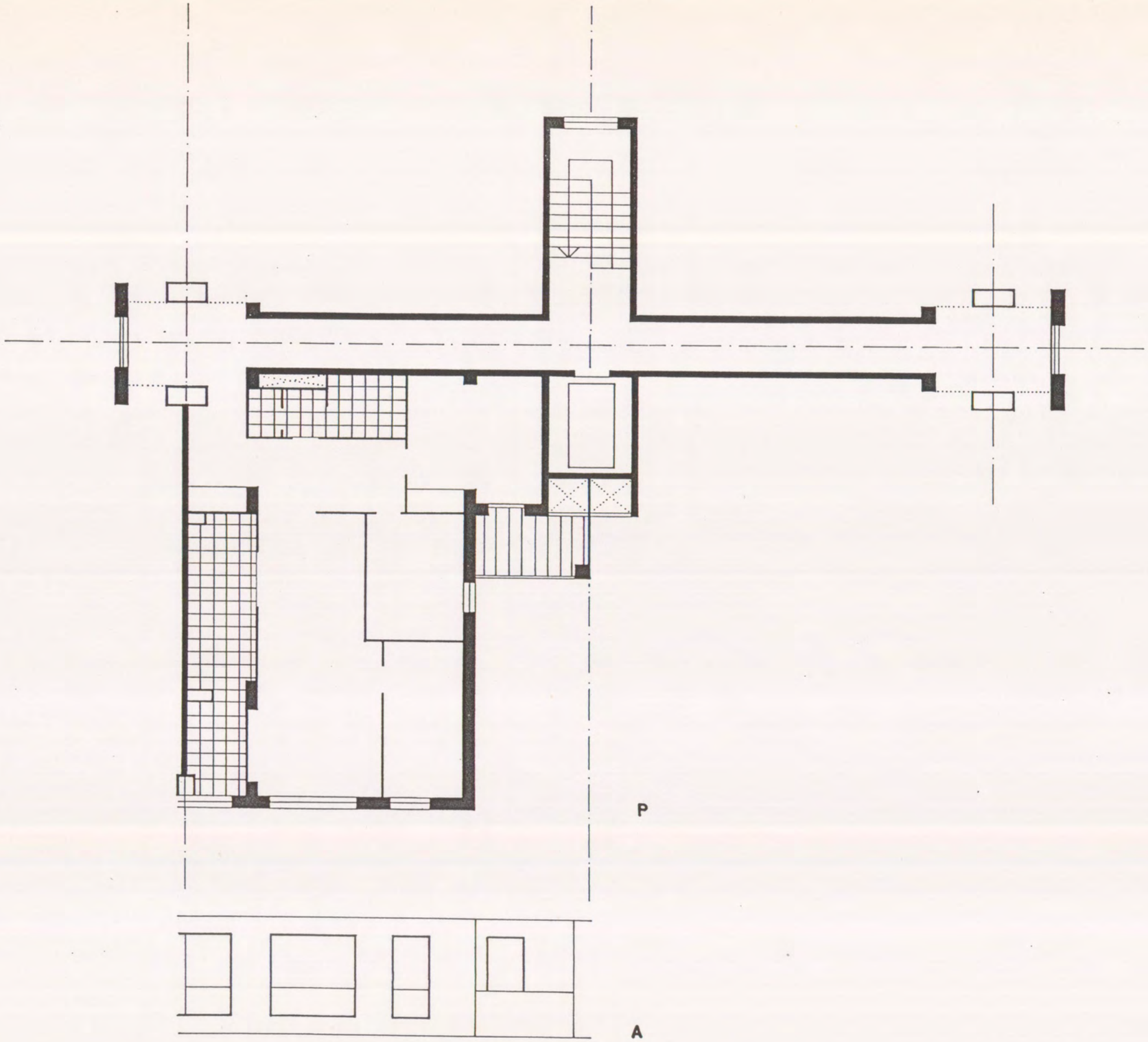
a	b	S	I	Gt	Gv	R.T.
Edifici original						
6.20	12.70	76.9	1.303	0.942	0.798	0.748

edifici: bio moragas
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 9.189
c= 0 d= 0 f= 0
kn= 4.4 .4 4.4 5 .46 .49 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .1 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
6.20	12.70	76.9	2.271	0.962	2.646	0.629

edifici: biomoragas
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 12.696
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 5 .46 .49 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .6 .1 .1 .2 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 0 0
alfa= .95 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
6.20	12.70	76.9	3.498	1.001	3.656	0.751



2.2.A.1

VIV. AVDA. CORTS CATALANAS (B)

J. BONET, ESTUDI PER

DATOS GEOMETRICOS

a = 6,40 m		(6,40/7,20 m)
b = 9,90 m		(9,90/8,90 m)
S = 68,37 m²		V = 205,11 m3
Si/S = 0,09		Si/Se = 0,54

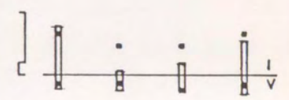
RATIOS TERMICOS (°C)

	sin aislar	aislado
invierno		
S	3,61	3,82
N	0,48	0,34
E	1,40	1,00
W	1,40	1,00
NE	2,74	2,89
SW	2,74	2,89
verano		
S	1,09	1,12
N	1,89	1,33
E	2,01	1,38
W	2,01	1,38
SE	1,54	1,58
SW	1,54	1,58

MASA TERMICA (kcal/°C m3)

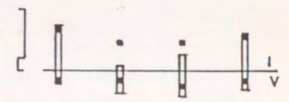
31,38	29,59

RT CON



s n e.w se.sw

RT SIN



s n e.w se.sw

1 2 4

BARCELONA 85·88

E.T.S.A.B. U.P.C.

TESIS DOCTORAL · BIOCLIMATISMO Y TIPO ARQUITECTONICO EN CATALUÑA EN EL PERIODO 1930 1985 · VICTOR SEGUI SANTANA

VIVIENDAS AVENIDA CORTS CATALANES (B). J. BONET. ESTUDI PER

22A1

CAPTORES TRANSPARENTES	1	V. SUR	S	0.853A
			t	0.7
			CR	CR1
	2	V. PATI	S	0.099 B
			t	0.7
			CR	PATIO
	3		S	
			t	
			CR	
	4		S	
			t	
			CR	
	5		S	
			t	
			CR	
	6		S	
			t	
			CR	
CAPTORES OPACOS	1	P. SUR	S	1.8468A
			CK	CK2
			α	0.6
			CR	CR1.
	2		S	
			CK	
			α	
			CR	
	3		S	
			CK	
			α	
			CR	
	4		S	
			CK	
			α	
			CR	
	5		S	
			CK	
			α	
			CR	
	6		S	
			CK	
			α	
			CR	
	7		S	
			CK	
			α	
			CR	
	8		S	
			CK	
			α	
			CR	
	9		S	
			CK	
			α	
			CR	
CUBIERTA	1		S	
			CK	
			α	

TRANSMISION FACHADAS	1	V. SUR	S	0.853A
			K	K1
			K	K1
	2	P. SUR	S	1.8468A
			K	K2
			K	K1
	3	V. PATIO 1	S	0.099B
			K	K3
			K	PATIO
	4	V. PATIO 2	S	0.25A
			K	K5
			K	PATIO
	5	P. PATIO 1	S	1.783B
			K	K 4
			K	PATIO
	6	P. PATIO 2.	S	0.445A
			K	K4
			K	PATIO.
	7		S	
			K	
			K	
	8		S	
			K	
			K	
	9		S	
			K	
			K	
	10		S	
			K	
			K	
	11		S	
			K	
			K	
	12		S	
			K	
			K	
	13		S	
			K	
			K	
	14		S	
			K	
			K	
	15		S	
			K	
			K	
	16		S	
			K	
			K	

INFILTRACIONES			S	9.59
			R	0.561
SEPARACION TERRENO	1		S	
			K	
	2		S	
			K	
SEPARACION OTROS LOCALES	1	MEDIAN 1	S	3.24.A
			K	K5
	2	MEDIAN 2	S	3.5182B
			K	K5
	3	PUERTA	S	1.68
			K	K6
	4	FORJADOS	S	2.1582AB
			K	K7.
	5		S	
			K	
TRANSMISION PIEL HORIZONT. CUBIERTA	1		S	
			K	
	2		S	
			K	

SUPERFICIE EN PLANTA	(1.0791. A. B)

VIVIENDAS AUD CORTS CATALANES (B). J. BONET. ESTUDI PER. 22A1

VARIABLES GEOMETRICAS	A	B	Amin.	Amax.	I	Bmin.	Bmax.	I	DESVIACION	B para S Cte.	VOLUMEN	SUPERFICIE
	6.4	9.9	6.4	7.2	0.1	8.9	9.9	0.1	0.01	63.358/A=B	205.11	68.37

R=2800 — INVIERNO — VERANO — R=2050

	K_1	K_2	K_3	K_4	K_5	K_6	K_7	K_8	K_9	K_{10}	K_{11}	K_{12}	K_{13}	K_{14}	K_{15}	K_{16}	K_{17}	K_{18}
	4.4	1.25	4.4	1.25	1.7	1.6	1.34											

O	RH	COEFICIENTES								COEFICIENTES DE TRANSMISION K																		COEFICIENTES							RH	O
S	0.561	CR_1	1	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2	1	CR_1	7.224	S
		K_1	0.8	K_2		K_3		K_4																				K_4		K_3		K_2	0.9	K_1		
		C		D		F		G		4.4	1.25	4.4	0.4	1.7	1.6	1.34												G		F		D		C		
N	0.561	CR_1	0.137	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2	0.756	CR_1	1.297	N
		K_1	1.2	K_2		K_3		K_4																				X_4		K_3		K_2	0.8	K_1		
		C		D		F		G		4.4	0.4	4.4	0.4	1.7	1.6	1.34												G		F		D		C		
E	0.561	CR_1	0.3977	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2	1.345	CR_1	4.303	E
		K_1	1	K_2		K_3		K_4																				K_4		K_3		K_2	1	K_1		
		C		D		F		G		4.4	0.4	4.4	0.4	1.7	1.6	1.34												G		F		D		C		
W		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2		CR_1		W
		K_1		K_2		K_3		K_4																				K_4		K_3		K_2		K_1		
		C		D		F		G																				G		F		D		C		
SE	0.561	CR_1	0.768	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2	1.2469	CR_1	5.946	SE
		K_1	0.9	K_2		K_3		K_4																				K_4		K_3		K_2	0.95	K_1		
		C		D		F		G		4.4	1.25	4.4	0.4	1.7	1.6	1.34												G		F		D		C		
SW		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2		CR_1		SW
		K_1		K_2		K_3		K_4																				K_4		K_3		K_2		K_1		
		C		D		F		G																				G		F		D		C		

```
44 REM *************** ESQUELET DE L'EDIFICI: corts          *****************
45 REM
50 DO=CR1*(.853*A*.7)              'façana 1 - Capt.transp. CRi*s*t
52 DA=CR2*0                       'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3* 0                       'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                        'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*.099*B*.7               'patis    - Capt.transp. CRi*s*t
60 DP=CR1*1.8468*A*CK2*.6         'façana 1 - Capt.opacs  CRi*s*abs*ckn
62 DD=CR2*0                        'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3* 0                       'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4* 0                       'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*0                        'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=.52*0                        'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=(1.0791*A*B)                 'superficie en planta   funció a i b
74 DU=A1*(.853*A*K1+1.8468*A*K2)                          'façana 1 - Transmissió  a
i*s*kn
76 DK=A2*0                         'façana 2 - Transmissió  ai*s*kn
78 DL=A3*0                         'façana 3 - Transmissió  ai*s*kn
80 DM=A4*0                         'façana 4 - Transmissió  ai*s*kn
82 DH=.8*(.099*B*K3+.23*A*K3+1.783*B*K4+.445*A*K4)                        'patis
  - Transmissió  ai*s*kn
84 DV=0                            'terra    - Transmissió  s*kn
86 DW= 3.24*A*K5+3.5182*B*K5+1.68 *K6+2.1582*A*B*K7   'locals   - Transmissió  s
*kn
88 DX= 0                           'coberta  - Transmissió  s*kn
89 RETURN
90 B=63.358/A                      'valor b per S constant   (funció de a)
```

difici: corts
ariant 1 orientació principal=sur HIVERN
v= 2800 D= 0 rh= .561
= 0 d= 0 f= 0
n= 4.4 1.25 4.4 1.25 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0
0
kn= .1 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
n= 0 0 0 0 0 0 0 0 0 0
r= 1 0 0 0
lfa= .8 0 0 0

a	b	S	I	Gt	Gv	R.T.
difici original						
6.40	9.90	68.4	4.613	1.114	0.162	3.618
ariació a amb b constant						
= 6.40/ 7.2 / .1						
6.40	9.90	68.4	4.613	1.114	0.162	3.618
6.50	9.90	69.4	4.613	1.109	0.162	3.630
6.60	9.90	70.5	4.613	1.105	0.162	3.642
6.70	9.90	71.6	4.612	1.101	0.162	3.653
6.80	9.90	72.6	4.612	1.097	0.162	3.665
6.90	9.90	73.7	4.612	1.093	0.162	3.676
7.00	9.90	74.8	4.612	1.089	0.162	3.687
7.10	9.90	75.8	4.611	1.086	0.162	3.697
7.20	9.90	76.9	4.611	1.082	0.162	3.708
ariació a/b per RT constant						
atio inicial= 3.618 desviació= .01						
= 6.40/ 7.2 / .1 b= 8.899999 / 9.899999 / .1						
	9.90	68.4	4.613	1.114	0.162	3.618
ar iació a/b per S constant						
= 6.4 / 7.2 / .1						
6.40	9.90	68.4	4.613	1.114	0.162	3.618
6.50	9.75	68.4	4.685	1.114	0.162	3.673
6.60	9.60	68.4	4.756	1.114	0.162	3.727
6.70	9.46	68.4	4.828	1.115	0.162	3.782
6.80	9.32	68.4	4.899	1.116	0.162	3.836
6.90	9.18	68.4	4.971	1.116	0.162	3.889
7.00	9.05	68.4	5.042	1.117	0.162	3.942
7.10	8.92	68.4	5.114	1.118	0.162	3.995
7.20	8.80	68.4	5.186	1.120	0.162	4.047

di ici: nadal s
ariant 2 orientació principal=norte HIVERN
v= 2800 D= 0 rh= .561
= 0 d= 0 f= 0
n= 4.4 1.25 4.4 1.25 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0
0
<r .1 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
n= 0 0 0 0 0 0 0 0 0 0
r= .137 0 0 0
lfa= 1.2 0 0 0

a	b	S	I	Gt	Gv	R.T.
difici original						
6.40	9.90	68.4	0.649	1.189	0.162	0.480
Variació a amb b constant						
a= 6.40/ 7.2 / .1						
6.40	9.90	68.4	0.649	1.189	0.162	0.480
6.50	9.90	69.4	0.649	1.185	0.162	0.481
6.60	9.90	70.5	0.648	1.181	0.162	0.483
6.70	9.90	71.6	0.648	1.176	0.162	0.484
6.80	9.90	72.6	0.648	1.172	0.162	0.485
6.90	9.90	73.7	0.647	1.169	0.162	0.486
7.00	9.90	74.8	0.647	1.165	0.162	0.487
7.10	9.90	75.8	0.647	1.161	0.162	0.489
7.20	9.90	76.9	0.647	1.158	0.162	0.490
Variació a/b per RT constant						
ratio inicial= .48 desviació= .01						
a= 6.40/ 7.2 / .1 b= 8.899999 / 9.899999 / .1						
9.70	67.0	0.662	1.197	0.162	0.487	
9.80	67.7	0.655	1.193	0.162	0.483	
9.90	68.4	0.649	1.189	0.162	0.480	
9.70	68.0	0.662	1.193	0.162	0.488	
9.80	68.7	0.655	1.189	0.162	0.485	
9.90	69.4	0.649	1.185	0.162	0.481	
9.70	69.1	0.661	1.188	0.162	0.489	
9.80	69.8	0.655	1.184	0.162	0.486	
9.90	70.5	0.648	1.181	0.162	0.483	
9.80	70.9	0.654	1.180	0.162	0.487	
9.90	71.6	0.648	1.176	0.162	0.484	
9.80	71.9	0.654	1.176	0.162	0.488	
9.90	72.6	0.648	1.172	0.162	0.485	
9.90	73.7	0.647	1.169	0.162	0.486	
9.90	74.8	0.647	1.165	0.162	0.487	
9.90	75.8	0.647	1.161	0.162	0.489	
Variació a/b per S constant						
a= 6.4 / 7.2 / .1						
6.40	9.90	68.4	0.649	1.189	0.162	0.480
6.50	9.75	68.4	0.658	1.191	0.162	0.486
6.60	9.60	68.4	0.668	1.192	0.162	0.493
6.70	9.46	68.4	0.678	1.194	0.162	0.499
6.80	9.32	68.4	0.687	1.196	0.162	0.506
6.90	9.18	68.4	0.697	1.198	0.162	0.512
7.00	9.05	68.4	0.706	1.200	0.162	0.518
7.10	8.92	68.4	0.716	1.202	0.162	0.524
7.20	8.80	68.4	0.725	1.205	0.162	0.530

edifici: nadal s
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= .561
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 1.25 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
6.40	9.90	68.4	1.846	1.151	0.162	1.406

Variació a amb b constant
a= 6.40/ 7.2 / .1

6.40	9.90	68.4	1.846	1.151	0.162	1.406
6.50	9.90	69.4	1.846	1.147	0.162	1.410
6.60	9.90	70.5	1.846	1.143	0.162	1.415
6.70	9.90	71.6	1.846	1.139	0.162	1.419
6.80	9.90	72.6	1.845	1.135	0.162	1.423
6.90	9.90	73.7	1.845	1.131	0.162	1.427
7.00	9.90	74.8	1.845	1.127	0.162	1.431
7.10	9.90	75.8	1.845	1.123	0.162	1.435
7.20	9.90	76.9	1.844	1.120	0.162	1.439

Variació a/b per RT constant
ratio inicial= 1.406 desviació= .01
a= 6.40/ 7.2 / .1 b= 8.899999 / 9.899999 / .1

9.90	68.4	1.846	1.151	0.162	1.406
9.90	69.4	1.846	1.147	0.162	1.410
9.90	70.5	1.846	1.143	0.162	1.415

Variació a/b per S constant
a= 6.4 / 7.2 / .1

6.40	9.90	68.4	1.847	1.151	0.162	1.406
6.50	9.75	68.4	1.875	1.152	0.162	1.426
6.60	9.60	68.4	1.903	1.153	0.162	1.447
6.70	9.46	68.4	1.931	1.155	0.162	1.467
6.80	9.32	68.4	1.960	1.156	0.162	1.487
6.90	9.18	68.4	1.988	1.157	0.162	1.507
7.00	9.05	68.4	2.016	1.159	0.162	1.526
7.10	8.92	68.4	2.044	1.160	0.162	1.546
7.20	8.80	68.4	2.073	1.162	0.162	1.565

edifici: nadal s
variant 5 orientació principal=sureste y suroeste HIVERN
Ry= 2800 D= 0 rh= .561
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 1.25 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.

Edifici original

6.40	9.90	68.4	3.548	1.132	0.162	2.741

Variació a amb b constant
a= 6.40/ 7.2 / .1

6.40	9.90	68.4	3.548	1.132	0.162	2.741
6.50	9.90	69.4	3.547	1.128	0.162	2.750
6.60	9.90	70.5	3.547	1.124	0.162	2.759
6.70	9.90	71.6	3.547	1.120	0.162	2.768
6.80	9.90	72.6	3.546	1.116	0.162	2.776
6.90	9.90	73.7	3.546	1.112	0.162	2.784
7.00	9.90	74.8	3.546	1.108	0.162	2.792
7.10	9.90	75.8	3.546	1.104	0.162	2.800
7.20	9.90	76.9	3.545	1.101	0.162	2.808

Variació a/b per RT constant
ratio inicial= 2.741 desviació= .01
a= 6.40/ 7.2 / .1 b= 8.899999 / 9.899999 / .1

9.90	68.4	3.548	1.132	0.162	2.741
9.90	69.4	3.547	1.128	0.162	2.750

Variació a/b per S constant
a= 6.4 / 7.2 / .1

6.40	9.90	68.4	3.548	1.132	0.162	2.741
6.50	9.75	68.4	3.602	1.133	0.162	2.782
6.60	9.60	68.4	3.657	1.134	0.162	2.823
6.70	9.46	68.4	3.712	1.135	0.162	2.863
6.80	9.32	68.4	3.767	1.136	0.162	2.903
6.90	9.18	68.4	3.822	1.137	0.162	2.943
7.00	9.05	68.4	3.877	1.138	0.162	2.982
7.10	8.92	68.4	3.932	1.139	0.162	3.022
7.20	8.80	68.4	3.986	1.141	0.162	3.060

edifici: corts
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= .561
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 .4 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .8 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	6.40	9.90	68.4	4.613	1.046	0.162	3.821

edifici: corts
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= .561
c= 0 d= 0 f= 0
kn= 4.4 .4 4.4 .4 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 0 0 0
alfa= 1.2 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	6.40	9.90	68.4	0.428	1.062	0.162	0.349

edifici: corts
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= .561
c= 0 d= 0 f= 0
kn= 4.4 .4 4.4 .4 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 0 0
alfa= 1 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	6.40	9.90	68.4	1.205	1.034	0.162	1.007

edifici: corts
variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= .561
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 .4 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 0 0
alfa= .9 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	6.40	9.90	68.4	3.548	1.064	0.162	2.893

```
44 REM *************** ESQUELET DE L'EDIFICI: corts ESQ()   ******************
45 REM
50 DO=CR1*(.853*A*.7)                'façana 1 - Capt.transp. CRi*s*t
52 DA=CR2*0                         'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3* 0                         'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                          'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*.099*B*.7                  'patis    - Capt.transp. CRi*s*t
60 DP=CR1*1.8468*A*CK2*.6            'façana 1 - Capt.opacs  CRi*s*abs*ckn
62 DD=CR2*0                          'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3* 0                         'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4* 0                         'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*0                          'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=2.4*0                          'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=(1.0791*A*B)                   'superficie en planta   funció a i b
74 DU=A1*(.853*A*K1+1.8468*A*K2)                          'façana 1 - Transmissió
i*s*kn
76 DK=A2*0                           'façana 2 - Transmissió  ai*s*kn
78 DL=A3*0                           'façana 3 - Transmissió  ai*s*kn
80 DM=A4*0                           'façana 4 - Transmissió  ai*s*kn
82 DH=.8*(.099*B*K3+.23*A*K3+1.783*B*K4+.445*A*K4)                              'patis
  - Transmissió  ai*s*kn
84 DV=0                              'terra    - Transmissió  s*kn
86 DW= 3.24*A*K5+3.5182*B*K5+1.68 *K6+2.1582*A*B*K7   'locals   - Transmissió
*kn
88 DX= 0                             'coberta  - Transmissió  s*kn
89 RETURN
90 B=63.358/A                        'valor b per S constant   (funció de a)
```

edifici: corts
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 7.224
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 1.25 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
6.40	9.90	68.4	3.378	0.996	2.081	1.097
Variació a amb b constant						
a= 6.40/ 7.2 / .1						
6.40	9.90	68.4	3.378	0.996	2.081	1.097
6.50	9.90	69.4	3.377	0.992	2.081	1.099
6.60	9.90	70.5	3.377	0.988	2.081	1.100
6.70	9.90	71.6	3.377	0.984	2.081	1.101
6.80	9.90	72.6	3.377	0.981	2.081	1.103
6.90	9.90	73.7	3.377	0.977	2.081	1.104
7.00	9.90	74.8	3.376	0.974	2.081	1.105
7.10	9.90	75.8	3.376	0.971	2.081	1.106
7.20	9.90	76.9	3.376	0.968	2.081	1.107
Variació a/b per RT constant						
ratio inicial= 1.097 desviació= .01						
a= 6.40/ 7.2 / .1	b= 8.899999 / 9.899999 / .1					
	9.90	68.4	3.378	0.996	2.081	1.097
	9.90	69.4	3.377	0.992	2.081	1.099
	9.90	70.5	3.377	0.988	2.081	1.100
	9.90	71.6	3.377	0.984	2.081	1.101
	9.90	72.6	3.377	0.981	2.081	1.103
	9.90	73.7	3.377	0.977	2.081	1.104
	9.90	74.8	3.376	0.974	2.081	1.105
	9.90	75.8	3.376	0.971	2.081	1.106
Variació a/b per S constant						
a= 6.4 / 7.2 / .1						
6.40	9.90	68.4	3.378	0.996	2.081	1.097
6.50	9.75	68.4	3.430	0.997	2.081	1.114
6.60	9.60	68.4	3.482	0.997	2.081	1.131
6.70	9.46	68.4	3.535	0.999	2.081	1.147
6.80	9.32	68.4	3.587	1.000	2.081	1.164
6.90	9.18	68.4	3.639	1.001	2.081	1.181
7.00	9.05	68.4	3.692	1.002	2.081	1.197
7.10	8.92	68.4	3.744	1.004	2.081	1.213
7.20	8.80	68.4	3.797	1.005	2.081	1.230

edifici: corts
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 1.297
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 1.25 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 0 0 0
alfa= .8 0 0 0

Edifici original						
6.40	9.90	68.4	2.557	0.977	0.374	1.893
Variació a amb b constant						
a= 6.40/ 7.2 / .1						
6.40	9.90	68.4	2.557	0.977	0.374	1.893
6.50	9.90	69.4	2.557	0.973	0.374	1.899
6.60	9.90	70.5	2.557	0.969	0.374	1.904
6.70	9.90	71.6	2.556	0.965	0.374	1.909
6.80	9.90	72.6	2.556	0.962	0.374	1.914
6.90	9.90	73.7	2.556	0.958	0.374	1.918
7.00	9.90	74.8	2.556	0.955	0.374	1.923
7.10	9.90	75.8	2.556	0.952	0.374	1.928
7.20	9.90	76.9	2.555	0.949	0.374	1.932
Variació a/b per RT constant						
ratio inicial= 1.893 desviació= .01						
a= 6.40/ 7.2 / .1	b= 8.899999 / 9.899999 / .1					
	9.90	68.4	2.557	0.977	0.374	1.893
	9.90	69.4	2.557	0.973	0.374	1.898
Variació a/b per S constant						
a= 6.4 / 7.2 / .1						
6.40	9.90	68.4	2.557	0.977	0.374	1.893
6.50	9.75	68.4	2.597	0.977	0.374	1.922
6.60	9.60	68.4	2.636	0.978	0.374	1.950
6.70	9.46	68.4	2.676	0.979	0.374	1.978
6.80	9.32	68.4	2.715	0.980	0.374	2.006
6.90	9.18	68.4	2.755	0.981	0.374	2.034
7.00	9.05	68.4	2.794	0.982	0.374	2.061
7.10	8.92	68.4	2.834	0.983	0.374	2.089
7.20	8.80	68.4	2.873	0.984	0.374	2.116

edifici: corts
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 4.303
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 1.25 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
6.40	9.90	68.4	4.538	1.015	1.239	2.013
Variació a amb b constant						
a= 6.40/ 7.2 / .1						
6.40	9.90	68.4	4.538	1.015	1.239	2.013
6.50	9.90	69.4	4.538	1.011	1.239	2.016
6.60	9.90	70.5	4.537	1.007	1.239	2.020
6.70	9.90	71.6	4.537	1.003	1.239	2.023
6.80	9.90	72.6	4.537	1.000	1.239	2.026
6.90	9.90	73.7	4.537	0.996	1.239	2.029
7.00	9.90	74.8	4.537	0.993	1.239	2.032
7.10	9.90	75.8	4.537	0.990	1.239	2.035
7.20	9.90	76.9	4.536	0.986	1.239	2.038
Variació a/b per RT constant						
ratio inicial= 2.013 desviació= .01						
a= 6.40/ 7.2 / .1	b= 8.899999 / 9.899999 / .1					
	9.90	68.4	4.538	1.015	1.239	2.013
	9.90	69.4	4.538	1.011	1.239	2.016
	9.90	70.5	4.537	1.007	1.239	2.020

Variació a/b per S constant
a= 6.4 / 7.2 / .1

6.40	9.90	68.4	4.538	1.015	1.239	2.013
6.50	9.75	68.4	4.609	1.016	1.239	2.043
6.60	9.60	68.4	4.679	1.017	1.239	2.073
6.70	9.46	68.4	4.749	1.018	1.239	2.103
6.80	9.32	68.4	4.820	1.020	1.239	2.133
6.90	9.18	68.4	4.890	1.021	1.239	2.163
7.00	9.05	68.4	4.961	1.023	1.239	2.192
7.10	8.92	68.4	5.031	1.025	1.239	2.222
7.20	8.80	68.4	5.102	1.026	1.239	2.251

edifici: corts
variant 4 orientació principal=sureste y suroeste ESTIU
I= 2050 D= 0 rh= 5.946
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 1.25 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
0
ckn= .1 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
L= 1.2469 0 0 0
alfa= .95 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
6.40	9.90	68.4	4.208	1.005	1.712	1.548
Variació a amb b constant						
a= 6.40/ 7.2 / .1						
6.40	9.90	68.4	4.208	1.005	1.712	1.548
6.50	9.90	69.4	4.208	1.001	1.712	1.550
6.60	9.90	70.5	4.208	0.997	1.712	1.552
6.70	9.90	71.6	4.207	0.994	1.712	1.554
6.80	9.90	72.6	4.207	0.990	1.712	1.556
6.90	9.90	73.7	4.207	0.987	1.712	1.558
7.00	9.90	74.8	4.207	0.983	1.712	1.560
7.10	9.90	75.8	4.207	0.980	1.712	1.562
7.20	9.90	76.9	4.206	0.977	1.712	1.564
Variació a/b per RT constant						
ratio inicial= 1.548 desviació= .01						
a= 6.40/ 7.2 / .1	b= 8.899999 / 9.899999 / .1					
	9.90	68.4	4.208	1.005	1.712	1.548
	9.90	69.4	4.208	1.001	1.712	1.550
	9.90	70.5	4.208	0.997	1.712	1.552
	9.90	71.6	4.207	0.994	1.712	1.554
	9.90	72.6	4.207	0.990	1.712	1.556
Variació a/b per S constant						
a= 6.4 / 7.2 / .1						
6.40	9.90	68.4	4.208	1.005	1.712	1.548
6.50	9.75	68.4	4.273	1.006	1.712	1.571
6.60	9.60	68.4	4.339	1.007	1.712	1.595
6.70	9.46	68.4	4.404	1.008	1.712	1.618
6.80	9.32	68.4	4.469	1.010	1.712	1.641
6.90	9.18	68.4	4.535	1.011	1.712	1.665
7.00	9.05	68.4	4.600	1.013	1.712	1.688
7.10	8.92	68.4	4.665	1.014	1.712	1.711
7.20	8.80	68.4	4.731	1.016	1.712	1.733

edifici: bio corts
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 7.224
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 .4 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .9 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	6.40	9.90	68.4	3.378	0.928	2.081	1.122

edifici: bio corts
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 1.297
c= 0 d= 0 f= 0
kn= 4.4 .4 4.4 .4 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 0 0 0
alfa= .8 0 0 0

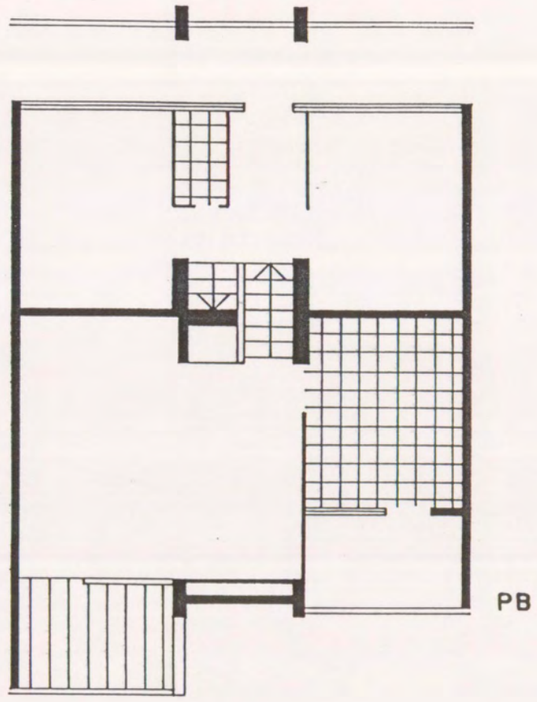
	a	b	S	I	Gt	Gv	R.T.
Edifici original	6.40	9.90	68.4	1.664	0.870	0.374	1.338

edifici: bio corts
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 4.303
c= 0 d= 0 f= 0
kn= 4.4 .4 4.4 .4 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 0 0
alfa= 1 0 0 0

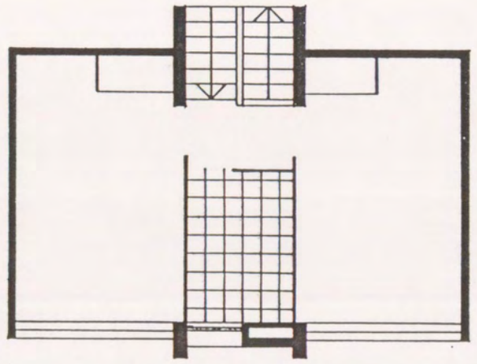
	a	b	S	I	Gt	Gv	R.T.
Edifici original	6.40	9.90	68.4	2.949	0.898	1.239	1.380

edifici: bio corts
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 5.946
c= 0 d= 0 f= 0
kn= 4.4 1.25 4.4 .4 1.7 1.6 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 0 0
alfa= .95 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	6.40	9.90	68.4	4.208	0.937	1.712	1.588



PB



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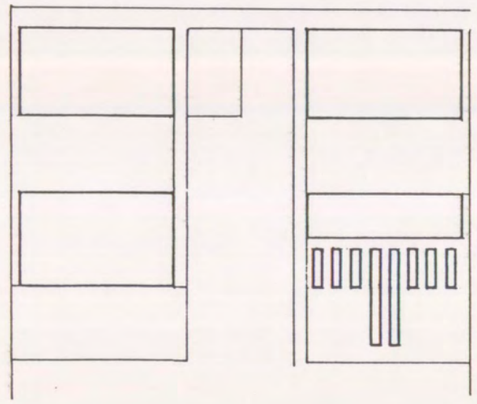


A

2.2.B.1

VIV. AVDA. MERIDIANA (B)

J.C. CARDENAL, J.A. BALLESTEROS
F. DE LA GUARDIA

DATOS GEOMETRICOS

a =	7,20 m	(7,20/8,20 m)	
b =	7,60 m	(7,60/8,60 m)	
S =	82,06 m²	V =	246,18 m3
Si/S =	0,15	Sit/Sio =	1,03

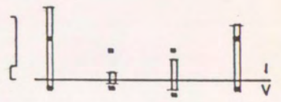
RATIOS TERMICOS (ºC)

	sin aislar	aislado
invierno		
S	5,87	5,87
N	0,71	0,51
E	2,20	1,58
W	2,20	1,58
NE	4,37	4,37
SW	4,37	4,37
verano		
S	0,60	0,60
N	0,43	0,32
E	1,30	0,91
W	1,30	0,91
SE	0,90	0,90
SW	0,90	0,90

MASA TERMICA (kcal/ºC m3)

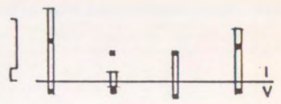
28,11 29,42

RT CON

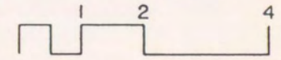


s n e.w se.sw

RT SIN



s n e.w se.sw



BARCELONA 85-88
E.T.S.A.B. U.P.C.

TESIS DOCTORAL · BIOCLIMATISMO Y TIPO ARQUITECTONICO EN CATALUÑA EN EL PERIODO 1930 1985 · VICTOR SEGUI SANTANA

	VIVIENDAS AUENIDA MERIDIANA (B). J.C CARDENAL. J.A BALLESTEROS. F. DE LA GUARDIA. 2.2B1.

CAPTORES TRANSPARENTES	1	V. SUR	S	1.805·A
			t	0.7
			CR	CR1
	2		S	
			t	
			CR	
	3		S	
			t	
			CR	
	4		S	
			t	
			CR	
	5		S	
			t	
			CR	
	6		S	
			t	
			CR	
CAPTORES OPACOS	1	P. SUR	S	1.75A
			CK	CK2
			α	0.6
			CR	CR1
	2		S	
			CK	
			α	
			CR	
	3		S	
			CK	
			α	
			CR	
	4		S	
			CK	
			α	
			CR	
	5		S	
			CK	
			α	
			CR	
	6		S	
			CK	
			α	
			CR	
	7		S	
			CK	
			α	
			CR	
	8		S	
			CK	
			α	
			CR	
	9		S	
			CK	
			α	
			CR	
CUBIERTA	1		S	
			CK	
			α	

TRANSMISION FACHADAS	1	V. SUR	S	2.29A
			K	K1
			K	CR1
	2	P. SUR	S	1.75 A
			K	K2
			K	CR1
	3	V. NORTE	S	0.6 A
			K	K3
			K	CR2
	4	PUERTA N	S	1.68
			K	K4
			K	CR2
	5	PARED NORT	S	1.86A
			K	K5
			K	CR2
	6		S	
			K	
			K	
	7		S	
			K	
			K	
	8		S	
			K	
			K	
	9		S	
			K	
			K	
	10		S	
			K	
			K	
	11		S	
			K	
			K	
	12		S	
			K	
			K	
	13		S	
			K	
			K	
	14		S	
			K	
			K	
	15		S	
			K	
			K	
	16		S	
			K	
			K	

INFILTRACIONES			S	22.5
			R	1.09.
SEPARACION TERRENO	1		S	
			K	
	2		S	
			K	
SEPARACION OTROS LOCALES	1	MEDIAN	S	(6B - 3.3)
			K	K6
	2	FORJADOS	S	2(1.55AB-2.86)
			K	K7
	3		S	
			K	
	4		S	
			K	
	5		S	
			K	
TRANSMISION PIEL HORIZONT. CUBIERTA	1		S	
			K	
	2		S	
			K	

SUPERFICIE EN PLANTA	(1.552 AB - 2.86)

VIVIENDAS AVENIDA MERIDIANA (B). J.C CARDENAL. J.A BALLESTEROS. F DE LA GUARDIA — 22B1

VARIABLES GEOMETRICAS	A	B	Amin.	Amax.	I	Bmin.	Bmax.	I	DESVIACION	B para S Cte.	VOLUMEN	SUPERFICIE
	7.2	7.6	7.2	8.2	0.1	7.6	8.6	0.1	0.01	$\frac{84.92}{1.552A} = B$	246.18	82.06

R=2800	INVIERNO	K_1	K_2	K_3	K_4	K_5	K_6	K_7	K_8	K_9	K_{10}	K_{11}	K_{12}	K_{13}	K_{14}	K_{15}	K_{16}	K_{17}	K_{18}	VERANO	R=2050
		5	1.25	5	1.7	2.1	1.7	1.34													

O	RH	COEFICIENTES								COEFICIENTES DE TRANSMISION K																		COEFICIENTES							RH	O
S	1.09	CR_1	1	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2	1	CR_1		S
		K_1	0.8	K_2		K_3		K_4																				K_4		K_3		K_2	0.9	K_1		
		C		D		F		G		5	1.25	5	1.7	2.1	1.7	1.34												G		F		D		C	29.885	
N	1.09	CR_1	0.137	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2	0.756	CR_1		N
		K_1	1.2	K_2		K_3		K_4																				X_4		K_3		K_2	0.8	K_1		
		C		D		F		G		5	0.4	5	1.7	2.1	1.7	1.34												G		F		D		C	29.885	
E	1.09	CR_1	0.3977	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2	1.345	CR_1		E
		K_1	1	K_2		K_3		K_4																				K_4		K_3		K_2	1	K_1		
		C		D		F		G		5	0.4	5	1.7	21	1.7	1.34												G		F		D		C	17.237	
W		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2		CR_1		W
		K_1		K_2		K_3		K_4																				K_4		K_3		K_2		K_1		
		C		D		F		G																				G		F		D		C		
SE	1.09	CR_1	0.768	CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2	1.2469	CR_1		SE
		K_1	0.9	K_2		K_3		K_4																				K_4		K_3		K_2	0.95	K_1		
		C		D		F		G		5	1.25	5	1.7	21	1.7	1.34												G		F		D		C	24.376	
SW		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2		CR_1		SW
		K_1		K_2		K_3		K_4																				K_4		K_3		K_2		K_1		
		C		D		F		G																				G		F		D		C		

```
44 REM *************** ESQUELET DE L'EDIFICI:meridian          ******************
45 REM
50 DQ=CR1*1.805*A*.7                              'façana 1 - Capt.transp. CRi*s*t
52 DA=CR2*0                              'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*0                              'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                              'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*0                              'patis    - Capt.transp. CRi*s*t
60 DP=CR1*1.75*A*CK2                              'façana 1 - Capt.opacs  CRi*s*abs*ckn
62 DD=CR2*0                              'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*0                              'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*0                              'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*0                              'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=.52*0                              'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=(1.552*A*B-2.86)                   'superfície en planta   funció a i b
74 DU=A1*(2.29*A*K1+1.75*A*K2)                                  'façana 1 - Transmissió  a
*s*kn
76 DK=A2*(.6*A*K3+1.68*K4+1.86*A*K5)                'façana 2 - Transmissió  ai*s*
n
78 DL=A3*0                               'façana 3 - Transmissió  ai*s*kn
80 DM=A4*0                               'façana 4 - Transmissió  ai*s*kn
82 DH=.8*0                               'patis    - Transmissió  ai*s*kn
84 DV=0                                  'terra    - Transmissió  s*kn
86 DW=((6*B-3.3)*K6)+(2*(1.552*A*B-2.86)*K7)                                'locals
- Transmissió  s*kn
88 DX=0                                  'coberta  - Transmissió  s*kn
89 RETURN
90 B=(84.92)/(1.552*A)                   'valor b per S constant   (funció de a)
```

edifici: meridian
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= 1.09
c= 0 d= 0 f= 0
kn 5 1.25 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .8 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.20	7.60	82.1	7.893	1.030	0.314	5.872
Variació a amb b constant						
a= 7.20/ 8.2 / .1						
7.20	7.60	82.1	7.893	1.030	0.314	5.872
7.30	7.60	83.2	7.890	1.028	0.314	5.880
7.40	7.60	84.4	7.886	1.025	0.314	5.889
7.50	7.60	85.6	7.882	1.023	0.314	5.897
7.60	7.60	86.8	7.879	1.020	0.314	5.905
7.70	7.60	88.0	7.876	1.018	0.314	5.913
7.80	7.60	89.1	7.872	1.016	0.314	5.921
7.90	7.60	90.3	7.869	1.013	0.314	5.929
8.00	7.60	91.5	7.866	1.011	0.314	5.936
8.10	7.60	92.7	7.863	1.009	0.314	5.943
8.20	7.60	93.9	7.860	1.007	0.314	5.950
Variació a/b per RT constant						
ratio inicial= 5.872 desviació= .01						
a= 7.20/ 8.2 / .1	b= 7.6 / 8.600001 / .1					
7.60	82.1	7.893	1.030	0.314	5.872	
7.60	83.2	7.890	1.028	0.314	5.880	
7.70	91.5	7.764	1.009	0.314	5.868	
7.70	92.7	7.761	1.007	0.314	5.875	
7.70	93.9	7.758	1.005	0.314	5.882	
Variació a/b per S constant						
a= 7.2 / 8.2 / .1						
7.20	7.60	82.1	7.894	1.030	0.314	5.872
7.30	7.50	82.1	8.004	1.032	0.314	5.945
7.40	7.39	82.1	8.113	1.034	0.314	6.018
7.50	7.30	82.1	8.223	1.036	0.314	6.091
7.60	7.20	82.1	8.333	1.038	0.314	6.162
7.70	7.11	82.1	8.442	1.040	0.314	6.234
7.80	7.01	82.1	8.552	1.042	0.314	6.305
7.90	6.93	82.1	8.661	1.045	0.314	6.375
8.00	6.84	82.1	8.771	1.047	0.314	6.445
8.10	6.76	82.1	8.881	1.049	0.314	6.514
8.20	6.67	82.1	8.990	1.052	0.314	6.583

edifici: meridian
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= 1.09
c= 0 d= 0 f= 0
kn= 5 1.25 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 0 0 0
alfa= 1.2 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.20	7.60	82.1	1.081	1.190	0.314	0.719
Variació a amb b constant						
a= 7.20/ 8.2 / .1						
7.20	7.60	82.1	1.081	1.190	0.314	0.719
7.30	7.60	83.2	1.081	1.187	0.314	0.720
7.40	7.60	84.4	1.080	1.184	0.314	0.721
7.50	7.60	85.6	1.080	1.182	0.314	0.721
7.60	7.60	86.8	1.079	1.179	0.314	0.722
7.70	7.60	88.0	1.079	1.177	0.314	0.723
7.80	7.60	89.1	1.079	1.175	0.314	0.724
7.90	7.60	90.3	1.078	1.172	0.314	0.725
8.00	7.60	91.5	1.078	1.170	0.314	0.726
8.10	7.60	92.7	1.077	1.168	0.314	0.726
8.20	7.60	93.9	1.077	1.166	0.314	0.727
Variació a/b per RT constant						
ratio inicial= .719 desviació= .01						
a= 7.20/ 8.2 / .1	b= 7.6 / 8.600001 / .1					
7.60	82.1	1.081	1.190	0.314	0.719	
7.70	83.2	1.067	1.184	0.314	0.712	
7.60	83.2	1.081	1.187	0.314	0.720	
7.70	84.4	1.066	1.181	0.314	0.713	
7.60	84.4	1.080	1.184	0.314	0.721	
7.70	85.6	1.066	1.178	0.314	0.714	
7.60	85.6	1.080	1.182	0.314	0.721	
7.70	86.8	1.065	1.176	0.314	0.715	
7.60	86.8	1.079	1.179	0.314	0.722	
7.70	88.0	1.065	1.173	0.314	0.716	
7.60	88.0	1.079	1.177	0.314	0.723	
7.70	89.2	1.064	1.171	0.314	0.717	
7.80	90.4	1.050	1.165	0.314	0.710	
7.60	89.1	1.079	1.175	0.314	0.724	
7.70	90.4	1.064	1.168	0.314	0.717	
7.80	91.6	1.050	1.162	0.314	0.711	
7.60	90.3	1.078	1.172	0.314	0.725	
7.70	91.5	1.064	1.166	0.314	0.718	
7.80	92.8	1.050	1.160	0.314	0.712	
7.60	91.5	1.078	1.170	0.314	0.726	
7.70	92.7	1.063	1.164	0.314	0.719	
7.80	94.0	1.049	1.158	0.314	0.712	
7.60	92.7	1.077	1.168	0.314	0.726	
7.70	93.9	1.063	1.162	0.314	0.720	
7.80	95.2	1.049	1.156	0.314	0.713	
7.60	93.9	1.077	1.166	0.314	0.727	
7.70	95.1	1.062	1.160	0.314	0.721	
7.80	96.4	1.048	1.153	0.314	0.714	
Variació a/b per S constant						
a= 7.2 / 8.2 / .1						
7.20	7.60	82.1	1.081	1.190	0.314	0.719
7.30	7.50	82.1	1.096	1.194	0.314	0.727
7.40	7.39	82.1	1.112	1.198	0.314	0.735
7.50	7.30	82.1	1.127	1.202	0.314	0.743
7.60	7.20	82.1	1.142	1.207	0.314	0.750
7.70	7.11	82.1	1.157	1.211	0.314	0.758
7.80	7.01	82.1	1.172	1.215	0.314	0.766
7.90	6.93	82.1	1.187	1.220	0.314	0.773
8.00	6.84	82.1	1.202	1.224	0.314	0.781
8.10	6.76	82.1	1.217	1.229	0.314	0.788
8.20	6.67	82.1	1.232	1.233	0.314	0.796

edifici: meridian
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= 1.09
c= 0 d= 0 f= 0
kn= 5 1.25 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.20	7.60	82.1	3.139	1.110	0.314	2.204
Variació a amb b constant						
a= 7.20/ 8.2 / .1						
7.20	7.60	82.1	3.139	1.110	0.314	2.204
7.30	7.60	83.2	3.138	1.107	0.314	2.207
7.40	7.60	84.4	3.136	1.105	0.314	2.210
7.50	7.60	85.6	3.135	1.102	0.314	2.213
7.60	7.60	86.8	3.133	1.100	0.314	2.216
7.70	7.60	88.0	3.132	1.097	0.314	2.219
7.80	7.60	89.1	3.131	1.095	0.314	2.221
7.90	7.60	90.3	3.130	1.093	0.314	2.224
8.00	7.60	91.5	3.128	1.091	0.314	2.227
8.10	7.60	92.7	3.127	1.088	0.314	2.229
8.20	7.60	93.9	3.126	1.086	0.314	2.232
Variació a/b per RT constant						
ratio inicial= 2.204 desviació= .01						
a= 7.20/ 8.2 / .1	b= 7.6 / 8.600001 / .1					
	7.60	82.1	3.139	1.110	0.314	2.204
	7.60	83.2	3.138	1.107	0.314	2.207
	7.60	84.4	3.136	1.105	0.314	2.210
	7.60	85.6	3.135	1.102	0.314	2.213
	7.70	89.2	3.090	1.092	0.314	2.197
	7.70	90.4	3.089	1.090	0.314	2.200
	7.70	91.5	3.088	1.088	0.314	2.203
	7.70	92.7	3.086	1.085	0.314	2.205
	7.70	93.9	3.085	1.083	0.314	2.208
	7.70	95.1	3.084	1.081	0.314	2.210
Variació a/b per S constant						
a= 7.2 / 8.2 / .1						
7.20	7.60	82.1	3.139	1.110	0.314	2.204
7.30	7.50	82.1	3.183	1.113	0.314	2.230
7.40	7.39	82.1	3.227	1.116	0.314	2.256
7.50	7.30	82.1	3.270	1.119	0.314	2.281
7.60	7.20	82.1	3.314	1.122	0.314	2.307
7.70	7.11	82.1	3.357	1.126	0.314	2.332
7.80	7.01	82.1	3.401	1.129	0.314	2.357
7.90	6.93	82.1	3.445	1.132	0.314	2.382
8.00	6.84	82.1	3.488	1.136	0.314	2.406
8.10	6.76	82.1	3.532	1.139	0.314	2.430
8.20	6.67	82.1	3.575	1.142	0.314	2.455

edifici: meridian
variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= 1.09
c= 0 d= 0 f= 0
kn= 5 1.25 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.20	7.60	82.1	6.062	1.070	0.314	4.379
Variació a amb b constant						
a= 7.20/ 8.2 / .1						
7.20	7.60	82.1	6.062	1.070	0.314	4.379
7.30	7.60	83.2	6.059	1.068	0.314	4.386
7.40	7.60	84.4	6.056	1.065	0.314	4.392
7.50	7.60	85.6	6.054	1.062	0.314	4.398
7.60	7.60	86.8	6.051	1.060	0.314	4.404
7.70	7.60	88.0	6.048	1.058	0.314	4.409
7.80	7.60	89.1	6.046	1.055	0.314	4.415
7.90	7.60	90.3	6.044	1.053	0.314	4.421
8.00	7.60	91.5	6.041	1.051	0.314	4.426
8.10	7.60	92.7	6.039	1.049	0.314	4.431
8.20	7.60	93.9	6.037	1.047	0.314	4.436
Variació a/b per RT constant						
ratio inicial= 4.379 desviació= .01						
a= 7.20/ 8.2 / .1	b= 7.6 / 8.600001 / .1					
	7.60	82.1	6.062	1.070	0.314	4.379
	7.60	83.2	6.059	1.068	0.314	4.386
	7.70	90.4	5.965	1.051	0.314	4.371
	7.70	91.5	5.963	1.048	0.314	4.376
	7.70	92.7	5.960	1.046	0.314	4.382
	7.70	93.9	5.958	1.044	0.314	4.387
Variació a/b per S constant						
a= 7.2 / 8.2 / .1						
7.20	7.60	82.1	6.063	1.070	0.314	4.380
7.30	7.50	82.1	6.147	1.073	0.314	4.433
7.40	7.39	82.1	6.231	1.075	0.314	4.485
7.50	7.30	82.1	6.315	1.078	0.314	4.538
7.60	7.20	82.1	6.399	1.080	0.314	4.590
7.70	7.11	82.1	6.484	1.083	0.314	4.641
7.80	7.01	82.1	6.568	1.086	0.314	4.692
7.90	6.93	82.1	6.652	1.088	0.314	4.743
8.00	6.84	82.1	6.736	1.091	0.314	4.793
8.10	6.76	82.1	6.820	1.094	0.314	4.843
8.20	6.67	82.1	6.905	1.097	0.314	4.893

edifici: meridian
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= 1.09
c= 0 d= 0 f= 0
kn= 5 1.25 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .8 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	7.20	7.60	82.1	7.893	1.030	0.314	5.872

edifici: meridian
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= 1.09
c= 0 d= 0 f= 0
kn= 5 .4 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 0 0 0
alfa= 1.2 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	7.20	7.60	82.1	0.754	1.138	0.314	0.519

edifici: meridian
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= 1.09
c= 0 d= 0 f= 0
kn= 5 .4 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 0 0
alfa= 1 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	7.20	7.60	82.1	2.189	1.067	0.314	1.585

edifici: meridian
variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= 1.09
c= 0 d= 0 f= 0
kn= 5 1.25 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 0 0
alfa= .9 0 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	7.20	7.60	82.1	6.062	1.070	0.314	4.379

```
44 REM *************** ESQUELET DE L'EDIFICI:meridian CSIC  ******************
45 REM
50 DO=CR1*1.805*A*.7                                    'façana 1 - Capt.transp. CRi*s*t
52 DA=CR2*O                                  'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*O                                  'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*O                                  'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*O                                  'patis    - Capt.transp. CRi*s*t
60 DP=CR1*1.75*A*CK2                                    'façana 1 - Capt.opacs  CRi*s*abs*ckn
62 DD=CR2*O                                  'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*O                                  'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*O                                  'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*O                                  'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=2.4*O                                  'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=(1.552*A*B-2.86)                       'superficie en planta   funció a i b
74 DU=Ai*(2.29*A*K1+1.75*A*K2)                                  'façana 1 - Transmissió  ai
*s*kn
76 DK=A2*(.6*A*K3+1.68*K4+1.86*A*K5)                    'façana 2 - Transmissió  ai*s*k
n
78 DL=A3*O                                   'façana 3 - Transmissió  ai*s*kn
80 DM=A4*O                                   'façana 4 - Transmissió  ai*s*kn
82 DH=.8*O                                   'patis    - Transmissió  ai*s*kn
84 DV=O                                      'terra    - Transmissió  s*kn
86 DW=((6*B-3.3)*K6)+(2*(1.552*A*B-2.86)*K7)                                    'locals
- Transmissió  s*kn
88 DX=O                                      'coberta  - Transmissió  s*kn
89 RETURN
90 B=(84.92)/(1.552*A)                       'valor b per S constant   (funció de a)
```

edifici: meridian

variant 1 orientació principal=sur ESTIU

Rv= 2050 D= 0 rh= 29.855

c= 0 d= 0 f= 0

kn= 5 1.25 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0

ckn= .1 .6 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0

en= 0 0 0 0 0 0 0 0 0 0

Cr= 1 0 0 0

alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.20	7.60	82.1	5.779	0.952	8.598	0.605
Variació a amb b constant						
a= 7.20/ 8.2 / .1						
7.20	7.60	82.1	5.779	0.952	8.598	0.605
7.30	7.60	83.2	5.776	0.949	8.598	0.605
7.40	7.60	84.4	5.774	0.947	8.598	0.604
7.50	7.60	85.6	5.771	0.945	8.598	0.604
7.60	7.60	86.8	5.769	0.943	8.598	0.604
7.70	7.60	88.0	5.766	0.941	8.598	0.604
7.80	7.60	89.1	5.764	0.939	8.598	0.604
7.90	7.60	90.3	5.761	0.937	8.598	0.604
8.00	7.60	91.5	5.759	0.935	8.598	0.604
8.10	7.60	92.7	5.757	0.934	8.598	0.603
8.20	7.60	93.9	5.755	0.932	8.598	0.603
Variació a/b per RT constant						
ratio inicial= .605 desviació= .01						
a= 7.20/ 8.2 / .1	b= 7.6 / 8.600001 / .1					
	7.60	82.1	5.779	0.952	8.598	0.605
	7.70	83.2	5.702	0.947	8.598	0.597
	7.60	83.2	5.776	0.949	8.598	0.605
	7.70	84.4	5.699	0.945	8.598	0.597
	7.60	84.4	5.774	0.947	8.598	0.604
	7.70	85.6	5.696	0.943	8.598	0.597
	7.60	85.6	5.771	0.945	8.598	0.604
	7.70	86.8	5.694	0.940	8.598	0.596
	7.60	86.8	5.769	0.943	8.598	0.604
	7.70	88.0	5.691	0.938	8.598	0.596
	7.60	88.0	5.766	0.941	8.598	0.604
	7.70	89.2	5.689	0.936	8.598	0.596
	7.60	89.1	5.764	0.939	8.598	0.604
	7.70	90.4	5.686	0.934	8.598	0.596
	7.60	90.3	5.761	0.937	8.598	0.604
	7.70	91.5	5.684	0.932	8.598	0.596
	7.60	91.5	5.759	0.935	8.598	0.604
	7.70	92.7	5.682	0.931	8.598	0.596
	7.60	92.7	5.757	0.934	8.598	0.603
	7.70	93.9	5.680	0.929	8.598	0.596
	7.60	93.9	5.755	0.932	8.598	0.603
	7.70	95.1	5.678	0.927	8.598	0.596
Variació a/b per S constant						
a= 7.2 / 8.2 / .1						
7.20	7.60	82.1	5.780	0.952	8.598	0.605
7.30	7.50	82.1	5.860	0.955	8.598	0.613
7.40	7.39	82.1	5.940	0.957	8.598	0.621
7.50	7.30	82.1	6.020	0.960	8.598	0.629
7.60	7.20	82.1	6.101	0.963	8.598	0.638
7.70	7.11	82.1	6.181	0.966	8.598	0.646
7.80	7.01	82.1	6.261	0.969	8.598	0.654
7.90	6.93	82.1	6.341	0.973	8.598	0.662
8.00	6.84	82.1	6.422	0.976	8.598	0.670
8.10	6.76	82.1	6.502	0.979	8.598	0.678
8.20	6.67	82.1	6.582	0.982	8.598	0.687

edifici: meridian

variant 2 orientació principal=norte ESTIU

Rv= 2050 D= 0 rh= 29.885

c= 0 d= 0 f= 0

kn= 5 1.25 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0

ckn= .1 .6 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0

en= 0 0 0 0 0 0 0 0 0 0

Cr= .756 0 0 0

alfa= .8 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.20	7.60	82.1	4.369	0.912	8.607	0.458
Variació a amb b constant						
a= 7.20/ 8.2 / .1						
7.20	7.60	82.1	4.369	0.912	8.607	0.458
7.30	7.60	83.2	4.367	0.910	8.607	0.458
7.40	7.60	84.4	4.365	0.907	8.607	0.458
7.50	7.60	85.6	4.363	0.905	8.607	0.458
7.60	7.60	86.8	4.361	0.903	8.607	0.458
7.70	7.60	88.0	4.359	0.901	8.607	0.458
7.80	7.60	89.1	4.357	0.899	8.607	0.458
7.90	7.60	90.3	4.356	0.897	8.607	0.458
8.00	7.60	91.5	4.354	0.896	8.607	0.458
8.10	7.60	92.7	4.352	0.894	8.607	0.458
8.20	7.60	93.9	4.351	0.892	8.607	0.458
Variació a/b per RT constant						
ratio inicial= .458 desviació= .01						
a= 7.20/ 8.2 / .1	b= 7.6 / 8.600001 / .1					
	7.60	82.1	4.369	0.912	8.607	0.458
	7.70	83.2	4.310	0.908	8.607	0.453
	7.60	83.2	4.367	0.910	8.607	0.458
	7.70	84.4	4.308	0.905	8.607	0.452
	7.60	84.4	4.365	0.907	8.607	0.458
	7.70	85.6	4.306	0.903	8.607	0.452
	7.60	85.6	4.363	0.905	8.607	0.458
	7.70	86.8	4.304	0.901	8.607	0.452
	7.60	86.8	4.361	0.903	8.607	0.458
	7.70	88.0	4.303	0.899	8.607	0.452
	7.60	88.0	4.359	0.901	8.607	0.458
	7.70	89.2	4.301	0.897	8.607	0.452
	7.60	89.1	4.357	0.899	8.607	0.458
	7.70	90.4	4.299	0.895	8.607	0.452
	7.60	90.3	4.356	0.897	8.607	0.458
	7.70	91.5	4.297	0.893	8.607	0.452
	7.60	91.5	4.354	0.896	8.607	0.458
	7.70	92.7	4.296	0.891	8.607	0.452
	7.60	92.7	4.352	0.894	8.607	0.458
	7.70	93.9	4.294	0.890	8.607	0.452
	7.60	93.9	4.351	0.892	8.607	0.458
	7.70	95.1	4.292	0.888	8.607	0.452
Variació a/b per S constant						
a= 7.2 / 8.2 / .1						
7.20	7.60	82.1	4.369	0.912	8.607	0.459
7.30	7.50	82.1	4.430	0.914	8.607	0.465
7.40	7.39	82.1	4.491	0.916	8.607	0.471
7.50	7.30	82.1	4.551	0.919	8.607	0.477
7.60	7.20	82.1	4.612	0.921	8.607	0.484
7.70	7.11	82.1	4.673	0.924	8.607	0.490
7.80	7.01	82.1	4.733	0.926	8.607	0.496
7.90	6.93	82.1	4.794	0.929	8.607	0.502
8.00	6.84	82.1	4.855	0.932	8.607	0.508
8.10	6.76	82.1	4.915	0.934	8.607	0.515
8.20	6.67	82.1	4.976	0.937	8.607	0.521

edifici: meridian
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 17.237
c= 0 d= 0 f= 0
kn= 5 1.25 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 0 0
alfa= 1 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.20	7.60	82.1	7.773	0.992	4.964	1.305
Variació a amb b constant						
a= 7.20/ 8.2 / .1						
7.20	7.60	82.1	7.773	0.992	4.964	1.305
7.30	7.60	83.2	7.769	0.989	4.964	1.304
7.40	7.60	84.4	7.766	0.987	4.964	1.304
7.50	7.60	85.6	7.762	0.985	4.964	1.304
7.60	7.60	86.8	7.759	0.983	4.964	1.304
7.70	7.60	88.0	7.755	0.981	4.964	1.304
7.80	7.60	89.1	7.752	0.979	4.964	1.304
7.90	7.60	90.3	7.749	0.977	4.964	1.304
8.00	7.60	91.5	7.746	0.975	4.964	1.304
8.10	7.60	92.7	7.743	0.973	4.964	1.304
8.20	7.60	93.9	7.740	0.971	4.964	1.303
Variació a/b per RT constant						
ratio inicial= 1.305 desviació= .01						
a= 7.20/ 8.2 / .1	b= 7.6 / 8.600001 / .1					
	7.60	82.1	7.773	0.992	4.964	1.305
	7.60	83.2	7.769	0.989	4.964	1.304
	7.60	84.4	7.766	0.987	4.964	1.304
	7.60	85.6	7.762	0.985	4.964	1.304
	7.60	86.8	7.759	0.983	4.964	1.304
	7.60	88.0	7.755	0.981	4.964	1.304
	7.60	89.1	7.752	0.979	4.964	1.304
	7.60	90.3	7.749	0.977	4.964	1.304
	7.60	91.5	7.746	0.975	4.964	1.304
	7.60	92.7	7.743	0.973	4.964	1.304
	7.60	93.9	7.740	0.971	4.964	1.303
Variació a/b per S constant						
a= 7.2 / 8.2 / .1						
7.20	7.60	82.1	7.773	0.992	4.964	1.305
7.30	7.50	82.1	7.881	0.995	4.964	1.322
7.40	7.39	82.1	7.989	0.998	4.964	1.339
7.50	7.30	82.1	8.097	1.002	4.964	1.357
7.60	7.20	82.1	8.205	1.005	4.964	1.374
7.70	7.11	82.1	8.313	1.009	4.964	1.391
7.80	7.01	82.1	8.421	1.013	4.964	1.408
7.90	6.93	82.1	8.529	1.016	4.964	1.426
8.00	6.84	82.1	8.637	1.020	4.964	1.443
8.10	6.76	82.1	8.745	1.024	4.964	1.460
8.20	6.67	82.1	8.853	1.028	4.964	1.477

edifici: meridian
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 24.376
c= 0 d= 0 f= 0
kn= 5 1.25 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 0 0
alfa= .95 .0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.20	7.60	82.1	7.206	0.972	7.020	0.901
Variació a amb b constant						
a= 7.20/ 8.2 / .1						
7.20	7.60	82.1	7.206	0.972	7.020	0.901
7.30	7.60	83.2	7.203	0.969	7.020	0.901
7.40	7.60	84.4	7.199	0.967	7.020	0.901
7.50	7.60	85.6	7.196	0.965	7.020	0.901
7.60	7.60	86.8	7.193	0.963	7.020	0.900
7.70	7.60	88.0	7.190	0.961	7.020	0.900
7.80	7.60	89.1	7.187	0.959	7.020	0.900
7.90	7.60	90.3	7.184	0.957	7.020	0.900
8.00	7.60	91.5	7.181	0.955	7.020	0.900
8.10	7.60	92.7	7.178	0.953	7.020	0.900
8.20	7.60	93.9	7.176	0.952	7.020	0.900
Variació a/b per RT constant						
ratio inicial= .901 desviació= .01						
a= 7.20/ 8.2 / .1	b= 7.6 / 8.600001 / .1					
	7.60	82.1	7.206	0.972	7.020	0.901
	7.60	83.2	7.203	0.969	7.020	0.901
	7.60	84.4	7.199	0.967	7.020	0.901
	7.60	85.6	7.196	0.965	7.020	0.901
	7.60	86.8	7.193	0.963	7.020	0.900
	7.60	88.0	7.190	0.961	7.020	0.900
	7.60	89.1	7.187	0.959	7.020	0.900
	7.60	90.3	7.184	0.957	7.020	0.900
	7.60	91.5	7.181	0.955	7.020	0.900
	7.60	92.7	7.178	0.953	7.020	0.900
	7.60	93.9	7.176	0.952	7.020	0.900
Variació a/b per S constant						
a= 7.2 / 8.2 / .1						
7.20	7.60	82.1	7.206	0.972	7.020	0.901
7.30	7.50	82.1	7.307	0.975	7.020	0.913
7.40	7.39	82.1	7.407	0.978	7.020	0.926
7.50	7.30	82.1	7.507	0.981	7.020	0.938
7.60	7.20	82.1	7.607	0.984	7.020	0.950
7.70	7.11	82.1	7.707	0.988	7.020	0.962
7.80	7.01	82.1	7.807	0.991	7.020	0.974
7.90	6.93	82.1	7.907	0.995	7.020	0.986
8.00	6.84	82.1	8.007	0.998	7.020	0.998
8.10	6.76	82.1	8.107	1.001	7.020	1.010
8.20	6.67	82.1	8.207	1.005	7.020	1.022

edifici: bio meridian
variant 1 orientació principal=sur ESTIU
R = 2050 D= 0 rh= 29.855
c= 0 d= 0 f= 0
kn= 5 1.25 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 0 0
alfa= .9 0 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.20	7.60	82.1	5.779	0.952	8.598	0.605

edifici: bio meridian
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 29.855
c= 0 d= 0 f= 0
k = 5 .4 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 0 0 0
alfa= .8 0 0 0

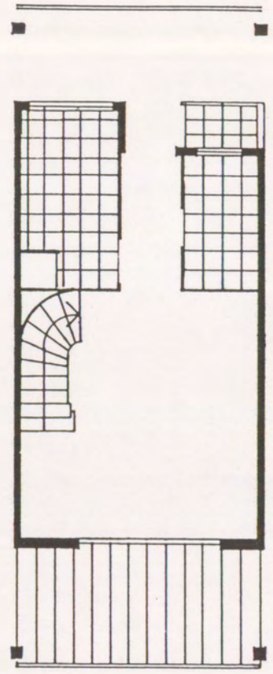
a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.20	7.60	82.1	3.047	0.877	8.598	0.321

edifici: bio meridian
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 17.237
c= 0 d= 0 f= 0
kn= 5 .4 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
e = 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 0 0
alfa= 1 0 0 0

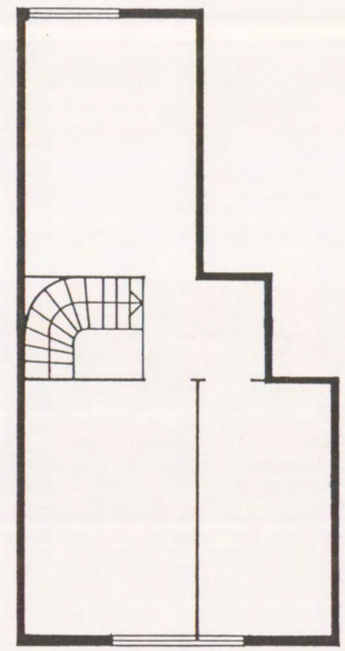
a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.20	7.60	82.1	5.421	0.948	4.964	0.916

edifici: bio meridian
variant 4 orientació principal=sureste y suroeste ESTIU
R = 2050 D= 0 rh= 24.376
c= 0 d= 0 f= 0
kn= 5 1.25 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 0 0
alfa= .95 0 0 0

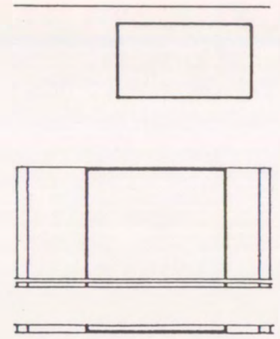
a	b	S	I	Gt	Gv	R.T.
Edifici original						
7.20	7.60	82.1	7.206	0.972	7.020	0.901



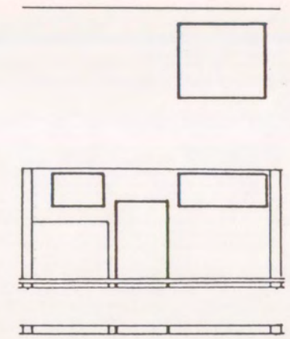
PB



PI



A1



A2

2.2.B.2

VIV. BARRIO SAN ANDRES
"CASABLOC" (B)

G.A.T.C.P.A.C.

DATOS GEOMETRICOS

a = 3,90 m
b = 9,70 m
S = 61,97 m² V = 185,92 m3
Si/S = 0,21 Sit/Sio = 0,46

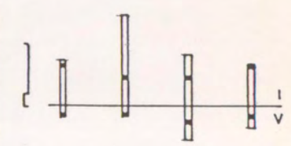
RATIOS TERMICOS (°C)

	sin aislar	aislado
invierno		
S	3,32	3,66
N	6,68	7,34
E	3,45	4,17
W	3,45	4,17
NE	2,87	3,13
SW	2,87	3,13
verano		
S	0,74	0,75
N	0,80	0,82
E	2,04	2,19
W	2,04	2,19
SE	1,26	1,72
SW	1,26	1,72

MASA TERMICA (kcal/°C m3)

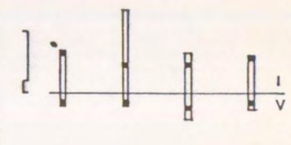
34,24 36,03

RT CON

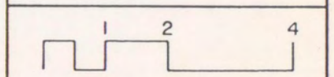


s n e.w se.sw

RT SIN



s n e.w se.sw



BARCELONA 85-88
E.T.S.A.B. U.P.C.

TESIS DOCTORAL · BIOCLIMATISMO Y TIPO ARQUITECTONICO EN CATALUÑA EN EL PERIODO 1930 1985 · VICTOR SEGUI SANTANA

VIVIENDAS BARRIO DE SAN ANDRES. "CASABLOC" (B). G.A.T.C.P.A.C

2.2B2

CAPTORES TRANSPARENTES	1	V. SUR 1	S	1.769 A C
			t	0.7
			CR	CR1
	2	V. SUR 2	S	0.807A
			t	0.7
			CR	CR1
	3	V. NORTE	S	0.825.A
			t	0.7
			CR	CR2
	4		S	
			t	
			CR	
	5		S	
			t	
			CR	
	6		S	
			t	
			CR	
CAPTORES OPACOS	1	PUERTA N	S	1.68
			CK	CK5
			α	0.6
			CR	CR2
	2	P. SUR 1	S	1.231 A C
			CK	CK2
			α	0.6
			CR	CR1
	3	P. SUR 2	S	2.192 A
			CK	CK2
			α	0.6
			CR	CR1
	4	P. NORTE	S	3.543 A
			CK	CK6
			α	0.6
			CR	CR2
	5		S	
			CK	
			α	
			CR	
	6		S	
			CK	
			α	
			CR	
	7		S	
			CK	
			α	
			CR	
	8		S	
			CK	
			α	
			CR	
	9		S	
			CK	
			α	
			CR	
CUBIERTA	1		S	
			CK	
			α	

TRANSMISION FACHADAS	1	V. SUR	S	2.576.A
			K	K1
			K	K1
	2	V. NORTE 1	S	0.825.A
			K	K3
			K	K2
	3	V. NORTE 2	S	0.315.A
			K	K4
			K	K2
	4	PUERTA N	S	1.68
			K	K5
			K	K2
	5	P. SUR	S	3.423A
			K	K2
			K	K1
	6	P. NORTE	S	3.543A
			K	K6
			K	K2
	7		S	
			K	
			K	
	8		S	
			K	
			K	
	9		S	
			K	
			K	
	10		S	
			K	
			K	
	11		S	
			K	
			K	
	12		S	
			K	
			K	
	13		S	
			K	
			K	
	14		S	
			K	
			K	
	15		S	
			K	
			K	
	16		S	
			K	
			K	

INFILTRACIONES			S	16.18
			K	1.059
SEPARACION TERRENO	1		S	
			K	
	2		S	
			K	
SEPARACION OTROS LOCALES	1	MEDIAN	S	7.67B
			K	K7
	2	FORJADO	S	1.638AB
			K	K8
	3		S	
			K	
	4		S	
			K	
	5		S	
			K	
TRANSMISION PIEL HORIZONT. CUBIERTA	1		S	
			K	
	2		S	
			K	

SUPERFICIE EN PLANTA	(2.A.B - 13.685)

VIVIENDAS BARRIO DE SAN ANDRES. "CASABLOC" (B). G.A.T.C.P.A.C

2282

VARIABLES GEOMETRICAS	A	B	Amin.	Amax.	I	Bmin.	Bmax.	I	DESVIACION	B para S Cte.	VOLUMEN	SUPERFICIE
	3.9	9.7									185.92	61.975

R=2800	INVIERNO	K_1	K_2	K_3	K_4	K_5	K_6	K_7	K_8	K_9	K_{10}	K_{11}	K_{12}	K_{13}	K_{14}	K_{15}	K_{16}	K_{17}	K_{18}	VERANO	R=2050
		4.4	2.1	4.4	5	1.7	2.1	1.7	1.34												

O	RH	COEFICIENTES								COEFICIENTES DE TRANSMISION K																				COEFICIENTES								RH	O
S		CR_1	1	CR_2	0.137	CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3	0.756	CR_2	1	CR_1		
		K_1	0.8	K_2	1.2	K_3		K_4																				K_4		K_3	0.8	K_2	0.9	K_1		
	1.059	C	0.71	D		F		G		4.4	2.1	4.4	5	1.7	0.46	1.7	1.34											G		F		D	0.55	C	34.861	
N		CR_1	0.137	CR_2	1	CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3	1	CR_2	0.756	CR_1		
		K_1	1.2	K_2	0.8	K_3		K_4																				X_4		K_3	0.9	K_2	0.8	K_1		
	1.059	C	1	D		F		G		4.4	0.46	4.4	5	1.7	2.1	1.7	1.34											G		F		D	0.187	C	34.861	
E		CR_1	0.3977	CR_2	0.3977	CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3	1.345	CR_2	1.345	CR_1		
		K_1	1	K_2	1	K_3		K_4																				K_4		K_3	1	K_2	1	K_1		
	1.059	C	0.66	D		F		G		4.4	0.46	4.4	5	1.7	0.46	1.7	1.34											G		F		D	0.75	C	20.127	
W		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2		CR_1		
		K_1		K_2		K_3		K_4																				K_4		K_3		K_2		K_1		
		C		D		F		G																				G		F		D		C		
SE		CR_1	0.768	CR_2	0.1578	CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3	1.07458	CR_2	12469	CR_1		
		K_1	0.9	K_2	1.1	K_3		K_4																				K_4		K_3	0.9	K_2	0.95	K_1		
	1.059	C	0.71	D		F		G		4.4	2.1	4.4	5	1.7	046	1.7	1.34											G		F		D	0.69	C	28.464	
SW		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2		CR_1		
		K_1		K_2		K_3		K_4																				K_4		K_3		K_2		K_1		
		C		D		F		G																				G		F		D		C		

```
\
44 REM *************** ESQUELET DE L'EDIFICI:casabloc          ****************
45 REM
50 DO=CR1*(1.769*A*C*.7+.807*A*.7)                          'façana 1 - Capt.trans
 CRi*s*t
52 DA=CR2*.825*A*.7                                  'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*0                                 'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                                 'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*0                                 'patis    - Capt.transp. CRi*s*t
60 DF=CR1*(1.231*A*C*CK2*.6+2.192*A*CK2*.6)                          'façana 1 - C
t.opacs  CRi*s*abs*ckn
62 DD=CR2*(1.68*CK5*.6+3.543*A+CK6*.6)                          'façana 2 - Capt.o
cs  CRi*s*abs*ckn
64 DF=CR3*0                                 'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*0                                 'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*0                                 'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=.52*0                                 'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=(2*A*B-13.685)                        'superfície en planta   funció a i b
74 DU=A1*(2.576*A*K1+3.423*A*K2)                                'façana 1 - Transmissió
ai*s*kn
76 DK=A2*(.825*A*K3+.315*A*K4+1.68*K5+3.548*A*K6)                          'façan
2 - Transmissió  ai*s*kn
78 DL=A3*0                                  'façana 3 - Transmissió  ai*s*kn
80 DM=A4*0                                  'façana 4 - Transmissió  ai*s*kn
82 DH=.8*0                                  'patis    - Transmissió  ai*s*kn
84 DV=0                                     'terra    - Transmissió  s*kn
86 DW=(7.67*B*K7)+(1.638*A*B*K8)                                 'locals   - Transmis
ó  s*kn
88 DX=0                                     'coberta  - Transmissió  s*kn
89 RETURN
90 B=9.7                                    'valor b per S constant   (funció de a)
```

edifici: casabloc
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= 1.059
c= .71 d= 0 f= 0
kn= 4.4 2.1 4.4 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 .137 0 0
alfa= .8 1.2 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.90	9.70	62.0	5.423	1.324	0.305	3.329
Variació a amb b constant						
a= 3.90/ 3.9 / .1						
3.90	9.70	62.0	5.423	1.324	0.305	3.329

edifici: casabloc
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= 1.059
c= 1 d= 0 f= 0
kn= 4.4 2.1 4.4 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 1 0 0
alfa= 1.2 .8 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.90	9.70	62.0	11.174	1.367	0.305	6.683
Variació a amb b constant						
= 3.90/ 3.9 / .1						
3.90	9.70	62.0	11.174	1.367	0.305	6.683

edifici: casabloc
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= 1.059
= .66 d= 0 f= 0
kn= 4.4 2.1 4.4 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 .3977 0 0
alfa= 1 1 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.90	9.70	62.0	5.697	1.345	0.305	3.452
Variació a amb b constant						
a= 3.90/ 3.9 / .1						
3.90	9.70	62.0	5.697	1.345	0.305	3.452

edifici: casabloc
variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= 1.059
c= .71 d= 0 f= 0
kn= 4.4 2.1 4.4 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 .1578 0 0
alfa= .9 1.1 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.90	9.70	62.0	4.717	1.334	0.305	2.877
Variació a amb b constant						
a= 3.90/ 3.9 / .1						
3.90	9.70	62.0	4.717	1.334	0.305	2.877

edifici: casabloc BO
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= 1.059
c= .71 d= 0 f= 0
kn= 4.4 2.1 4.4 5 1.7 .46 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .2 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 .137 0 0
alfa= .8 1.2 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.90	9.70	62.0	5.428	1.177	0.305	3.661

edifici: casabloc
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= 1.059
c= 1 d= 0 f= 0
kn= 4.4 .46 4.4 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 1 0 0
alfa= 1.2 .8 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.90	9.70	62.0	11.243	1.226	0.305	7.345

edifici: casabloc
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= 1.059
c= .66 d= 0 f= 0
kn= 4.4 .46 4.4 5 1.7 .46 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .1 .6 .2 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 .3977 0 0
alfa= 1 1 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.90	9.70	62.0	5.887	1.106	0.305	4.173

edifici: casabloc
variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= 1.059
c= .71 d= 0 f= 0
kn= 4.4 2.1 4.4 5 1.7 .46 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .2 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 .1578 0 0
alfa= .9 1.1 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.90	9.70	62.0	4.723	1.200	0.305	3.137

```
44 REM *************** ESQUELET DE L'EDIFICI:casabloc ESQU. ***************
45 REM
50 DO=CR1*(1.769*A*C*.7+.807*A*.7)                          'façana 1 - Capt.tra
 CRi*s*t
52 DA=CR2*.825*A*.7                                  'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*0                                'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                                'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*0                                'patis    - Capt.transp. CRi*s*t
60 DP=CR1*(1.231*A*C*CK2*.6+2.192*A*CK2*.6)                          'façana 1 -
t.opacs  CRi*s*abs*ckn
62 DD=CR2*(1.68*CK5*.6+3.543*A+CK6*.6)                       'façana 2 - Capt
cs  CRi*s*abs*ckn
64 DF=CR3*0                                'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*0                                'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*0                                'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=2.4*0                                'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=(2*A*B-13.685)                       'superfície en planta   funció a i b
74 DU=A1*(2.576*A*K1+3.423*A*K2)                            'façana 1 - Transmiss
ai*s*kn
76 DK=A2*(.825*A*K3+.315*A*K4+1.68*K5+3.543*A*K6)                            'faç
2 - Transmissió  ai*s*kn
78 DL=A3*0                                 'façana 3 - Transmissió  ai*s*kn
80 DM=A4*0                                 'façana 4 - Transmissió  ai*s*kn
82 DH=.8*0                                 'patis    - Transmissió  ai*s*kn
84 DV=0                                    'terra    - Transmissió  s*kn
86 DW=(7.67*B*K7)+(1.638*A*B*K8)                             'locals    - Transmi
ó  s*kn
88 DX=0                                    'coberta  - Transmissió  s*kn
89 RETURN
90 B=9.7                                   'valor b per S constant   (funció de a)
```

edifici: casabloc
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 34.861
c= .55 d= 0 f= 0
kn= 4.4 2.1 4.4 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 .756 0 0
alfa= .9 .8 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.90	9.70	62.0	8.353	1.138	10.040	0.747

edifici: casabloc
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 34.861
c= .187 d= 0 f= 0
kn= 4.4 2.1 4.4 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 1 0 0
alfa= .8 .9 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.90	9.70	62.0	8.964	1.127	10.040	0.802

edifici: casabloc
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 20.127
c= .75 d= 0 f= 0
kn= 4.4 2.1 4.4 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 1.345 0 0
alfa= 1 1 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.90	9.70	62.0	14.390	1.238	5.797	2.047

edifici: casabloc
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 28.464
c= .69 d= 0 f= 0
kn= 4.4 2.1 4.4 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 1.07458 0 0
alfa= .95 .9 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.90	9.70	62.0	11.840	1.185	8.198	1.261

edifici: biocasabloc
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 34.861
c= .55 d= 0 f= 0
kn= 4.4 2.1 4.4 5 1.7 .46 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .2 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 .756 0 0
alfa= .9 .8 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.90	9.70	62.0	8.374	1.040	10.040	0.755

edifici: biocasabloc
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 34.861
c= .187 d= 0 f= 0
kn= 4.4 .46 4.4 5 1.7 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .1 .6 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 1 0 0
alfa= .8 .9 0 0

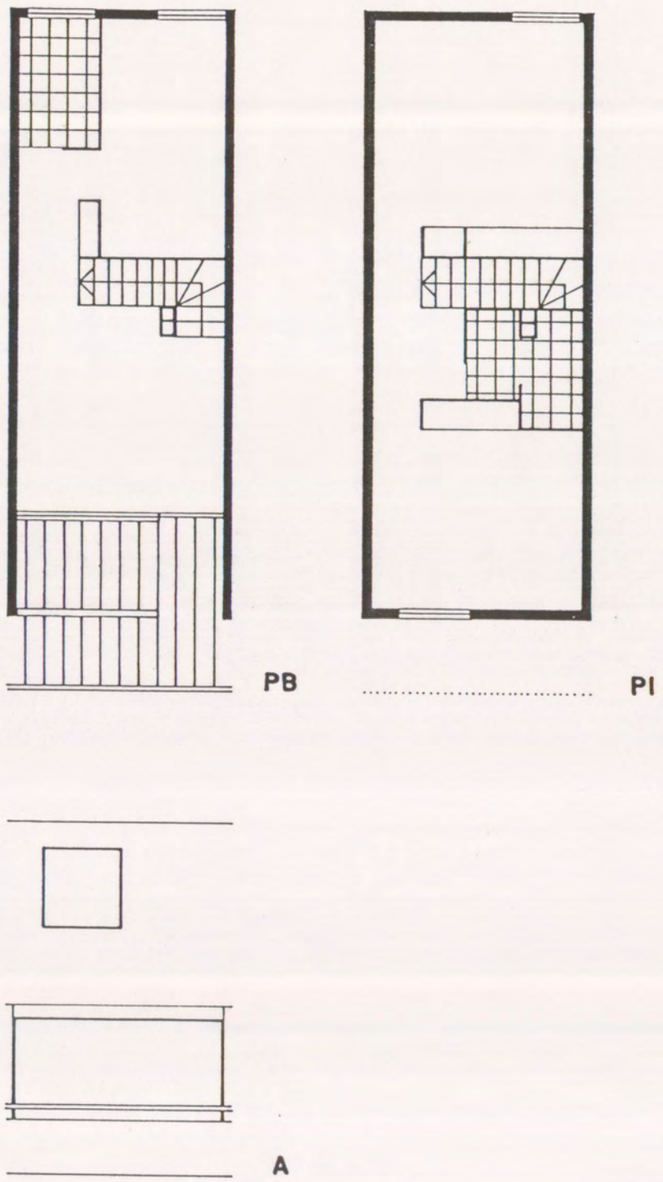
a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.90	9.70	62.0	9.161	1.033	10.040	0.827

edifici: biocasabloc
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 20.127
c= .75 d= 0 f= 0
kn= 4.4 .46 4.4 5 1.7 .46 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .1 .6 .2 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 1.345 0 0
alfa= 1 1 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.90	9.70	62.0	14.878	0.993	5.797	2.151

edifici: biocasabloc
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 20.127
c= .69 d= 0 f= 0
kn= 4.4 2.1 4.4 5 1.7 .46 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .2 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 1.07458 0 0
alfa= .95 .9 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.90	9.70	62.0	11.870	1.075	5.797	1.727



2.2.B.3

ESTUDIO VIV MANZANA
ENSANCHE DIAGONAL (6)

G.A.T.C.P.A.C

DATOS GEOMETRICOS

a = 3,80 m
b = 10,00 m
S = 69,92 m² V = 209,76 m3
Si/S = 0,17 Sit/Sio = 0,40

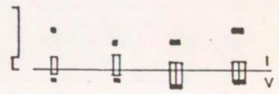
RATIOS TERMICOS (°C)

	sin aislar	aislado
invierno		
S	0,99	1,09
N	1,18	1,27
E	0,72	0,96
W	0,70	0,93
NE	0,78	0,88
SW	0,78	0,88
verano		
S	0,36	0,40
N	0,32	0,35
E	0,87	1,07
W	0,87	1,07
SE	0,58	0,66
SW	0,58	0,66

MASA TERMICA (kcal/°C m3)

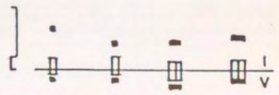
35,30 37,15

RT CON

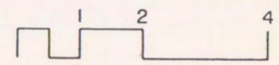


s n e·w se.sw

RT SIN



s n e·w se.sw



BARCELONA 85·88
E.T.S.A.B. U.P.C.

TESIS DOCTORAL · BIOCLIMATISMO Y TIPO ARQUITECTONICO EN CATALUÑA EN EL PERIODO 1930 1985 · VICTOR SEGUI SANTANA

ESTUDIO VIVIENDAS MANZANA ENSANCHE DIAGONAL (B). G.A.T.C.P.A.C 22B3

CAPTORES TRANSPARENTES	1	V. SUR 1	S	1.61 A C
			t	0.7
			CR	CR1
	2	V SUR 2	S	0.379 A D
			t	0.7
			CR	CR1
	3	V. NORTE	S	1.137 A
			t	0.7
			CR	CR2
	4		S	
			t	
			CR	
	5		S	
			t	
			CR	
	6		S	
			t	
			CR	
CAPTORES OPACOS	1	P. SUR 1	S	1.089 A C
			CK	CK2
			α	0.6
			CR	CR1
	2	P SUR 2	S	2.32 A D
			CK	CK2
			α	0.6
			CR	CR1
	3	P. NORTE	S	4.26 A
			CK	CK4
			α	0.6
			CR	CR2
	4		S	
			CK	
			α	
			CR	
	5		S	
			CK	
			α	
			CR	
	6		S	
			CK	
			α	
			CR	
	7		S	
			CK	
			α	
			CR	
	8		S	
			CK	
			α	
			CR	
	9		S	
			CK	
			α	
			CR	
CUBIERTA	1		S	
			CK	
			α	

TRANSMISION FACHADAS	1	V. SUR	S	1.989 A
			K	K1
			K	K1
	2	P SUR	S	3.41. A
			K	K2
			K	K1
	3	V NORTE	S	11. 37 A
			K	K3
			K	K2
	4	P. NORTE	S	4.26 A
			K	K4
			K	K2
	5		S	
			K	
			K	
	6		S	
			K	
			K	
	7		S	
			K	
			K	
	8		S	
			K	
			K	
	9		S	
			K	
			K	
	10		S	
			K	
			K	
	11		S	
			K	
			K	
	12		S	
			K	
			K	
	13		S	
			K	
			K	
	14		S	
			K	
			K	
	15		S	
			K	
			K	
	16		S	
			K	
			K	

INFILTRACIONES			S	11.88
			K	0.679
SEPARACION TERRENO	1		S	
			K	
	2		S	
			K	
SEPARACION OTROS LOCALES	1	MEDIAN	S	9.936 B
			K	K5
	2	FORJADOS	S	(2.AB-1.60.A)
			K	K6
	3		S	
			K	
	4		S	
			K	
	5		S	
			K	
TRANSMISION PIEL HORIZONT. CUBIERTA	1		S	
			K	
	2		S	
			K	

SUPERFICIE EN PLANTA	(2.A.B - 1.60.A)

ESTUDIO VIVIENDAS MANZANA ENSANCHE DIAGONAL (B) G.A.T. E.P.A.C

22B3

VARIABLES GEOMETRICAS	A	B	Amin.	Amax.	I	Bmin.	Bmax.	I	DESVIACION	B para S Cte.	VOLUMEN	SUPERFICIE
	3.8	10									209.76	69.92

R=2800	INVIERNO	K_1	K_2	K_3	K_4	K_5	K_6	K_7	K_8	K_9	K_{10}	K_{11}	K_{12}	K_{13}	K_{14}	K_{15}	K_{16}	K_{17}	K_{18}	VERANO	R=2050
		5	2.1	5	2.1	1.7	1.34														

O	RH	COEFICIENTES								COEFICIENTES DE TRANSMISION K																		COEFICIENTES								RH	O
S		CR_1	1	CR_2	0.137	CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3	0.756	CR_2	1	CR_1		S
		K_1	0.8	K_2	1.2	K_3		K_4																				K_4		K_3	0.8	K_2	0.9	K_1		
	0.679	C	0.645	D	0.811	F		G		5	2.1	5	0.46	1.7	1.34													G		F	0.64	D	0.536	C	18.617	
N		CR_1	0.137	CR_2	1	CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3	1	CR_2	0.756	CR_1		N
		K_1	1.2	K_2	0.8	K_3		K_4																				X_4		K_3	0.9	K_2	0.8	K_1		
	0.679	C	1	D	1	F		G		5	0.46	5	2.1	1.7	1.34													G		F	1	D	0.187	C	18.617	
E		CR_1	0.3977	CR_2	0.3977	CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3	1.345	CR_2	1.345	CR_1		E
		K_1	1	K_2	1	K_3		K_4																				K_4		K_3	1	K_2	1	K_1		
	0.679	C	0.554	D	0.792	F		G		5	0.46	5	0.46	1.7	1.34													G		F	0.746	D	0.697	C	10.749	
W		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2		CR_1		W
		K_1		K_2		K_3		K_4																				K_4		K_3		K_2		K_1		
		C		D		F		G																				G		F		D		C		
SE		CR_1	0.768	CR_2	0.1578	CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3	1.07458	CR_2	1.2469	CR_1		SE
		K_1	0.9	K_2	1.1	K_3		K_4																				K_4		K_3	0.9	K_2	0.95	K_1		
	0.679	C	0.599	D	0.792	F		G		5	2.1	5	0.46	1.7	1.34													G		F	0.681	D	0.633	C	15.202	
SW		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2		CR_1		SW
		K_1		K_2		K_3		K_4																				K_4		K_3		K_2		K_1		
		C		D		F		G																				G		F		D		C		

```
44 REM *************** ESQUELET DE L'EDIFICI:gatepacD          ****************
45 REM
50 DO=CR1*(1.61*A*C*.7+.379*A*D*.7) 'façana 1 - Capt.transp. CRi*s*t
52 DA=CR2*1.137*A*.7           'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*0                     'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                     'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*0                     'patis    - Capt.transp. CRi*s*t
60 DP=CR1*(1.089*A*C*CK2*.6+2.32*A*D*CK2*.6)          'façana 1 - Capt.opacs
CRi*s*abs*ckn
62 DD=CR2*4.26*A*CK4*.6       'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*0                     'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*0                     'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*0                     'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=.52*0                     'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=(2*A*B-1.6*A)           'superfície en planta   funció a i b
74 DU=A1*(1.989*A*K1+3.41*A*K2)               'façana 1 - Transmissió  ai*s*kn
76 DK=A2*(11.37*A*K3+4.26*A*K4)                     'façana 2 - Transmissió  a
*s*kn
78 DL=A3*0                      'façana 3 - Transmissió  ai*s*kn
80 DM=A4*0                    'façana 4 - Transmissió  ai*s*kn
82 DH=.8* 0                     'patis    - Transmissió  ai*s*kn
84 DV= 0                        'terra    - Transmissió  s*kn
86 DW=9.936*B*K5+(2*A*B-1.6*A)*K6                   'locals   - Transmissió  s*k

88 DX=  0                       'coberta  - Transmissió  s*kn
89 RETURN
90 B= 10                      'valor b per S constant   (funció de a)
```

edifici: gatepacd
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= .679
c= .645 d= .811 f= 0
kn= 5 2.1 5 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 .137 0 0
alfa= .8 1.2 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.80	10.00	69.9	2.623	2.429	0.196	0.999
Variació a amb b constant						
a= 3.80/ 3.8 / .1						
3.80	10.00	69.9	2.623	2.429	0.196	0.999

edifici: gatepacd
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= .679
c= 1 d= 1 f= 0
kn= 5 2.1 5 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 1 0 0
alfa= 1.2 .8 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.80	10.00	69.9	2.685	2.077	0.196	1.181
Variació a amb b constant						
a= 3.80/ 3.8 / .1						
3.80	10.00	69.9	2.685	2.077	0.196	1.181

edifici: gatepacd
variant 3 orientació principal=este HIVERN
Rv= 2800 D= 0 rh= .679
c= .554 d= 1 f= 0
kn= 5 2.1 5 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 .3977 0 0
alfa= 1 1 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.80	10.00	69.9	1.779	2.253	0.196	0.726
Variació a amb b constant						
a= 3.80/ 3.8 / .1						
3.80	10.00	69.9	1.779	2.253	0.196	0.726

edifici: gatepacd
variant 4 orientació principal=oeste HIVERN
Rv= 2800 D= 0 rh= .679
c= .554 d= .847 f= 0
kn= 5 2.1 5 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 .3977 0 0
alfa= 1 1 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.80	10.00	69.9	1.727	2.253	0.196	0.705
Variació a amb b constant						
a= 3.80/ 3.8 / .1						
3.80	10.00	69.9	1.727	2.253	0.196	0.705

edifici: gatepacd
variant 5 orientació principal=sureste HIVERN
Rv= 2800 D= 0 rh= .679
c= .599 d= .729 f= 0
kn= 5 2.1 5 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 .1578 0 0
alfa= .9 1.1 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.80	10.00	69.9	1.989	2.341	0.196	0.783
Variació a amb b constant						
a= 3.80/ 3.8 / .1						
3.80	10.00	69.9	1.989	2.341	0.196	0.783

edifici: gatepacd
variant 6 orientació principal=suroeste HIVERN
Rv= 2800 D= 0 rh= .679
c= .599 d= .729 f= 0
kn= 5 2.1 5 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 .1578 0 0
alfa= .9 1.1 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.80	10.00	69.9	1.989	2.341	0.196	0.783
Variació a amb b constant						
a= 3.80/ 3.8 / .1						
3.80	10.00	69.9	1.989	2.341	0.196	0.783

```
edifici: gatepacd
variant  1    orientació principal=sur       HIVERN
Rv= 2800  D= 0  rh= .679
c=  .645    d=  .811    f=  0
kn=  5  2.1  5  .46  1.7  1.34  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
ckn=  .1  .1  .1  .2  .6  .6  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
en=  0  0  0  0  0  0  0  0  0  0
Cr=  1  .137  0  0
alfa=  .8  1.2  0  0
```

	a	b	S	I	Gt	Gv	R.T.
Edifici original	3.80	10.00	69.9	2.697	2.278	0.196	1.090

```
edifici: gatepacd
variant  2    orientació principal=norte      HIVERN
Rv= 2800  D= 0  rh= .679
c=  1    d=  1    f=  0
kn=  5  .46  5  2.1  1.7  1.34  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
ckn=  .1  .2  .1  .1  .6  .6  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
en=  0  0  0  0  0  0  0  0  0  0
Cr=  .187  1  0  0
alfa=  1.2  .8  0  0
```

	a	b	S	I	Gt	Gv	R.T.
Edifici original	3.80	10.00	69.9	2.744	1.955	0.196	1.275

```
edifici: gatepacd
variant  3    orientació principal=este      HIVERN
Rv= 2800  D= 0  rh= .679
c=  .554    d=  1    f=  0
kn=  5  .46  5  .46  1.7  1.34  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
ckn=  .1  .2  .1  .2  .6  .6  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
en=  0  0  0  0  0  0  0  0  0  0
Cr=  .3977  .3977  0  0
alfa=  1  1  0  0
```

	a	b	S	I	Gt	Gv	R.T.
Edifici original	3.80	10.00	69.9	2.141	2.025	0.196	0.964

```
edifici: gatepacd
variant  4    orientació principal=oeste      HIVERN
Rv= 2800  D= 0  rh= .679
c=  .554    d=  .847    f=  0
kn=  5  .46  5  .46  1.7  1.34  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
ckn=  .1  .2  .1  .2  .6  .6  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
en=  0  0  0  0  0  0  0  0  0  0
Cr=  .3977  .3977  0  0
alfa=  1  1  0  0
```

	a	b	S	I	Gt	Gv	R.T.
Edifici original	3.80	10.00	69.9	2.071	2.025	0.196	0.932

```
edifici: gatepacd
variant  5    orientació principal=sureste y suroeste      HIVERN
Rv= 2800  D= 0  rh= .679
c=  .599    d=  .792    f=  0
kn=  5  2.1  5  .46  1.7  1.34  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
ckn=  .1  .1  .1  .2  .6  .6  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
en=  0  0  0  0  0  0  0  0  0  0
Cr=  .768  .1578  0  0
alfa=  .9  1.1  0  0
```

	a	b	S	I	Gt	Gv	R.T.
Edifici original	3.80	10.00	69.9	2.115	2.202	0.196	0.882

```
44 REM *************** ESQUELET DE L'EDIFICI:gatepacD ***************
45 REM
50 DO=CR1*(1.61*A*C*.7+.379*A*D*.7) 'façana 1 - Capt.transp. CRi*s*t
52 DA=CR2*1.137*A*.7              'façana 2 - Capt.transp. CRi*s*t
54 DR=CR3*0                       'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                       'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*0                       'patis    - Capt.transp. CRi*s*t
60 DP=CR1*(1.089*A*C*CK2*.6+2.32*A*D*CK2*.6)          'façana 1 - Capt.opacs
CRi*s*abs*ckn
62 DD=CR2*4.26*A*CK4*.6         'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*0                       'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*0                       'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*0                       'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=2.4*0                       'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=(2*A*B-1.6*A)             'superficie en planta   funció a i b
74 DU=A1*(1.989*A*K1+3.41*A*K2)                 'façana 1 - Transmissió  ai*s*kn
76 DK=A2*(11.37*A*K3+4.26*A*K4)                       'façana 2 - Transmissió  a
*s*kn
78 DL=A3*0                        'façana 3 - Transmissió  ai*s*kn
80 DM=A4*0                      'façana 4 - Transmissió  ai*s*kn
82 DH=.8* 0                       'patis    - Transmissió  ai*s*kn
84 DV= 0                          'terra    - Transmissió  s*kn
86 DW=9.936*B*K5+(2*A*B-1.6*A)*K6                   'locals   - Transmissió  s*k

88 DX=  0                         'coberta  - Transmissió  s*kn
89 RETURN
90 B= 10                        'valor b per S constant   (funció de a)
```

edifici: gatepacd
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 18.617
c= .536 d= .64 f= 0
kn= 5 2.1 5 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 .756 0 0
alfa= .9 .8 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.80	10.00	69.9	2.620	1.858	5.362	0.362

edifici: gatepacd
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 18.617
c= .187 d= 1 f= 0
kn= 5 2.1 5 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 1 0 0
alfa= .8 .9 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.80	10.00	69.9	2.361	1.947	5.362	0.323

edifici: gatepacd
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 10.749
c= .697 d= .746 f= 0
kn= 5 2.1 5 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 1.345 0 0
alfa= 1 1 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.80	10.00	69.9	4.546	2.128	3.096	0.870

edifici: gatepacd
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 15.202
c= .633 d= .681 f= 0
kn= 5 2.1 5 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 1.07458 0 0
alfa= .95 .9 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.80	10.00	69.9	3.736	1.993	4.378	0.586

edifici: bio gatepacd
variant 1 orientació principal=sur ESTIU
R.= 2050 D= 0 rh= 18.617
c= .536 d= .64 f= 0
kn= 5 2.1 5 .46 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .2 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 .756 0 0
alfa= .9 .8 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.80	10.00	69.9	2.919	1.757	5.362	0.409

edifici: bio gatepacd
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 18.617
c= .187 d= 1 f= 0
kn= 5 .46 5 2.1 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .1 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 1 0 0
alfa= .8 .9 0 0

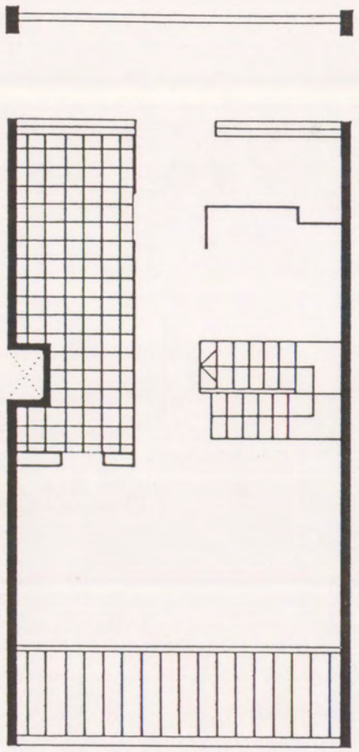
a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.80	10.00	69.9	2.538	1.866	5.362	0.351

edifici: bio gatepacd
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 10.749
c= .697 d= .746 f= 0
kn= 5 .46 5 .46 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .2 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 1.345 0 0
alfa= 1 1 0 0

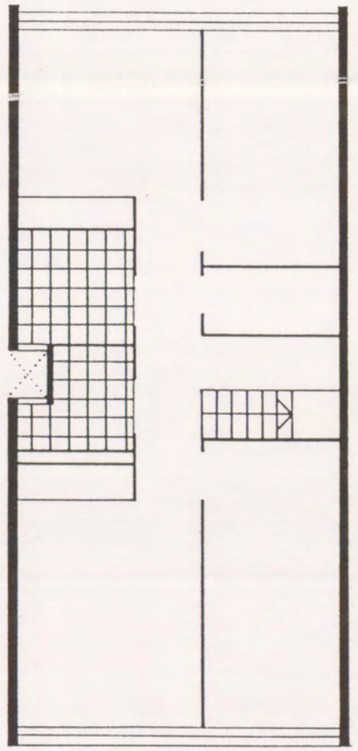
a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.80	10.00	69.9	5.389	1.900	3.096	1.078

edifici: bio GATEPACD
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 15.202
c= .633 d= .681 f= 0
kn= 5 2.1 5 .46 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .2 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 1.07458 0 0
alfa= .95 .9 0 0

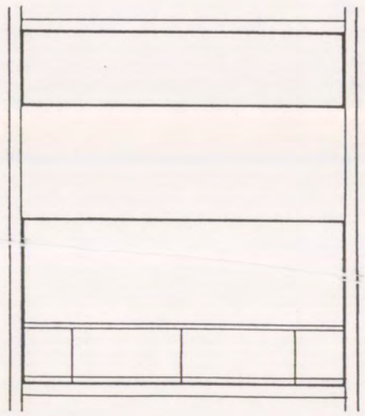
a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.80	10.00	69.9	4.161	1.879	4.378	0.665



PB



PI



A

2.2.B.4

GRUPO VIV. ESCORIAL (B)

F. MITJANS, A. PERPINA,
J.M. RIBAS, O. BOHIGAS,
J.M. MARTORELL, J. ALEMANY,
M. RIBAS

DATOS GEOMETRICOS

a = 5,20 m	(5,20/5,80 m)
b = 11,20 m	(11,20/11,80 m)
S = 98,08 m²	V = 294,24 m3
Sl/S = 0,20	Slt/Slo = 0,43

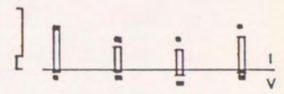
RATIOS TERMICOS (°C)

	sin aislar	aislado
invierno		
S	3,17	3,23
N	1,86	1,86
E	1,66	1,46
W	1,66	1,46
NE	2,39	2,41
SW	2,39	2,41
verano		
S	0,22	0,20
N	0,16	0,15
E	0,62	0,59
W	0,62	0,59
SE	0,30	0,28
SW	0,30	0,28

MASA TERMICA (kcal/°C m3)

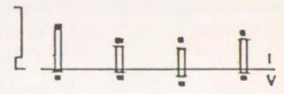
37,59	37,01

RT CON

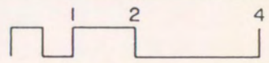


s n e.w se.sw

RT SIN



s n e.w se.sw



BARCELONA 85·88
E.T.S.A.B. U.P.C.

TESIS DOCTORAL · BIOCLIMATISMO Y TIPO ARQUITECTONICO EN CATALUÑA EN EL PERIODO 1930 1985 · VICTOR SEGUI SANTANA

GRUPO VIV ESCORIAL (B). F MITJANS, A PERPIÑA, O BOHIGAS, JM MARTORELL, J. ACEMANY, M RIBAS — 22B4

CAPTORES TRANSPARENTES	1	V. SUR 1	S	2.7 A.C
			t	0.7
			CR	CR1
	2	V. SUR 2	S	1.35 A
			t	0.7
			CR	CR1
	3	V. NORTE	S	1.35 A
			t	0.7
			CR	CR2
	4		S	
			t	
			CR	
	5		S	
			t	
			CR	
	6		S	
			t	
			CR	
CAPTORES OPACOS	1	P. SUR	S	1.35 A
			CK	CK2
			a	0.6
			CR	CR1
	2	P. NORTE	S	1.35 A
			CK	CK5
			a	0.6
			CR	CR2
	3		S	
			CK	
			a	
			CR	
	4		S	
			CK	
			a	
			CR	
	5		S	
			CK	
			a	
			CR	
	6		S	
			CK	
			a	
			CR	
	7		S	
			CK	
			a	
			CR	
	8		S	
			CK	
			a	
			CR	
	9		S	
			CK	
			a	
			CR	
CUBIERTA	1		S	
			CK	
			a	

TRANSMISION FACHADAS	1	V. SUR	S	4.05 A
			K	K1
			K	K1
	2	P. SUR	S	1.35. A
			K	K2
			K	K1
	3	FORJ ⌒ P.S	S	0.116 A B
			K	K3
			K	K1
	4	V. NORTE	S	1.35. A
			K	K4
			K	K2
	5	P. NORTE	S	1.35. A
			K	K5
			K	K2
	6	FORJ. ⌒ P.N	S	0.199 A B
			K	K6
			K	K2
	7		S	
			K	
			K	
	8		S	
			K	
			K	
	9		S	
			K	
			K	
	10		S	
			K	
			K	
	11		S	
			K	
			K	
	12		S	
			K	
			K	
	13		S	
			K	
			K	
	14		S	
			K	
			K	
	15		S	
			K	
			K	
	16		S	
			K	
			K	

INFILTRACIONES			S	34.98
			R	1.426
SEPARACION TERRENO	1		S	
			K	
	2		S	
			K	
SEPARACION OTROS LOCALES	1	MEDIAN.	S	18.61 x B
			K	K7
	2	FORJADOS	S	(2.A.B-3.538A)
			K	K8
	3		S	
			K	
	4		S	
			K	
	5		S	
			K	
TRANSMISION PIEL HORIZONT. CUBIERTA	1		S	
			K	
	2		S	
			K	

SUPERFICIE EN PLANTA	(2.A.B-3,538A)

GRUPO VIV ESCORIAL (B) F. MITJANS, A PERPIÑA. O BOHIGAS. J.M. MARTORELL, J ALEMANY . M RIBAS. 2284

VARIABLES GEOMETRICAS	A	B	Amin.	Amax.	I	Bmin.	Bmax.	I	DESVIACION	B para S Cte.	VOLUMEN	SUPERFICIE
	5.2	11.2	5.2	5.8	0.1	11.2	11.8	0.1	0.01	$\frac{(98.08+3.538\,A)}{(2.A)}=B$	294.24	98.08

R=2800	INVIERNO	K_1	K_2	K_3	K_4	K_5	K_6	K_7	K_8	K_9	K_{10}	K_{11}	K_{12}	K_{13}	K_{14}	K_{15}	K_{16}	K_{17}	K_{18}	VERANO	R=2050
		5	1.25	1.64	5	1.25	1.64	1.7	1.34												

O	RH	COEFICIENTES								COEFICIENTES DE TRANSMISION K																		COEFICIENTES							RH	O
S	1'426	CR_1	1	CR_2	0.137	CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3	0.756	CR_2	1	CR_1		S
		K_1	0.8	K_2	1.2	K_3		K_4																				K_4		K_3	0.8	K_2	0.9	K_1		
		C	0.769	D		F		G		5	1.25	1.64	5	0.4	0.78	1.7	1.34											G		F		D	0.643	C	88.22	
N	1'426	CR_1	0.137	CR_2	1	CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3	1	CR_2	0.756	CR_1		N
		K_1	1.2	K_2	0.8	K_3		K_4																				X_4		K_3	0.9	K_2	0.8	K_1		
		C	1	D		F		G		5	0.4	0.78	5	1.25	1.64	1.7	1.34											G		F		D	0.187	C	83.22	
E	1.426	CR_1	0.3977	CR_2	0.3977	CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3	1.345	CR_2	1.345	CR_1		E
		K_1	1	K_2	1	K_3		K_4																				K_4		K_3	1	K_2	1	K_1		
		C	0.674	D		F		G		5	0.4	0.78	5	0.4	0.78	1.7	1.34											G		F		D	0.739	C	43.032	
W		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2		CR_1		W
		K_1		K_2		K_3		K_4																				K_4		K_3		K_2		K_1		
		C		D		F		G																				G		F		D		C		
SE	1.426	CR_1	0.768	CR_2	0.1578	CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3	1.07458	CR_2	1.2469	CR_1		SE
		K_1	0.9	K_2	1.1	K_3		K_4																				K_4		K_3	0.9	K_2	0.95	K_1		
		C	0.704	D		F		G		5	1.25	1.64	5	0.4	0.78	1.7	1.34											G		F		D	0.645	C	60.856	
SW		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2		CR_1		SW
		K_1		K_2		K_3		K_4																				K_4		K_3		K_2		K_1		
		C		D		F		G																				G		F		D		C		

```
44 REM *************** ESQUELET DE L'EDIFICI:mbmesc          *****************
45 REM
50 DO=CR1*(2.7*A*C*.7+1.35*A*.7)                        'façana 1 - Capt.transp. C
Ri*s*t
52 DA=CR2*1.35*A*.7                          'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*0                          'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                          'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*0                          'patis    - Capt.transp. CRi*s*t
60 DP=CR1*1.35*A*CK2*.6                          'façana 1 - Capt.opacs  CRi*s*abs*c
kn
62 DD=CR2*1.35*A*CK5*.6                          'façana 2 - Capt.opacs  CRi*s*abs*ck

64 DF=CR3*0                          'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*0                          'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*0                          'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=.52*0                         'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=(2*A*B-3.538*A)                'superfície en planta   funció a i b
74 DU=A1*(4.05*A*K1+1.35*A*K2+.116*A*B*K3)                          'façana 1 - Tra
nsmissió  ai*s*kn
76 DK=A2*(1.35*A*K4+1.35*A*K5+.199*A*B*K6)                          'façana 2 - Tra
nsmissió  ai*s*kn
78 DL=A3*0                           'façana 3 - Transmissió  ai*s*kn
80 DM=A4*0                           'façana 4 - Transmissió  ai*s*kn
82 DH=.8*0                           'patis    - Transmissió  ai*s*kn
84 DV=0                              'terra    - Transmissió  s*kn
86 DW=(18.61*B*K7)+(K8*(2*A*B-3.538*A))                             'locals   - Tra
nsmissió  s*kn
88 DX=0                              'coberta  - Transmissió  s*kn
89 RETURN
90 B=(98.08+3.538*A)/(2*A)           'valor b per S constant   (funció de a)
```

edifici: mbmesc
va iant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= 1.426
c= .769 d= 0 t= 0
kn= 5 1.25 1.64 5 1.25 1.64 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
er= 0 0 0 0 0 0 0 0 0 0
Cr= 1 .137 0 0
alfa= .8 1.2 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.20	11.20	98.1	6.351	1.587	0.411	3.178
Variació a amb b constant						
a= 5.20/ 5.8 / .1						
5.20	11.20	98.1	6.351	1.587	0.411	3.178
5.30	11.20	100.0	6.351	1.574	0.411	3.200
5.40	11.20	101.9	6.351	1.560	0.411	3.222
5.50	11.20	103.7	6.351	1.548	0.411	3.242
5.60	11.20	105.6	6.351	1.536	0.411	3.263
5.70	11.20	107.5	6.351	1.524	0.411	3.283
5.80	11.20	109.4	6.351	1.512	0.411	3.302
Variació a/b per RT constant						
ratio inicial= 3.178 desviació= .01						
a= 5.20/ 5.8 / .1	b= 11.2 / 11.8 / .1					
	11.20	98.1	6.351	1.587	0.411	3.178
	11.30	101.0	6.285	1.567	0.411	3.177
	11.40	104.0	6.219	1.548	0.411	3.175
	11.50	107.0	6.155	1.529	0.411	3.173
	11.60	110.1	6.093	1.511	0.411	3.170
	11.70	115.2	6.031	1.482	0.411	3.186
Variació a/b per S constant						
a= 5.2 / 5.8 / .1						
5.20	11.20	98.1	6.351	1.587	0.411	3.178
5.30	11.02	98.1	6.473	1.586	0.411	3.242
5.40	10.85	98.1	6.596	1.584	0.411	3.306
5.50	10.69	98.1	6.718	1.583	0.411	3.369
5.60	10.53	98.1	6.840	1.583	0.411	3.431
5.70	10.37	98.1	6.962	1.583	0.411	3.492
5.80	10.22	98.1	7.084	1.583	0.411	3.553

difici: mbmesc
ariant 2 orientació principal=norte HIVERN
v= 2800 D= 0 rh= 1.426
= 1 d= 0 f= 0
n= 5 1.25 1.64 5 1.25 1.64 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
kn= .1 .6 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
n= 0 0 0 0 0 0 0 0 0 0
r= .137 1 0 0
lfa= 1.2 .8 0 0

a	b	S	I	Gt	Gv	R.T.
difici original						
5.20	11.20	98.1	3.888	1.672	0.411	1.867
Variació a amb b constant						
a= 5.20/ 5.8 / .1						
5.20	11.20	98.1	3.888	1.672	0.411	1.867
5.30	11.20	100.0	3.888	1.658	0.411	1.879
5.40	11.20	101.9	3.888	1.645	0.411	1.891
5.50	11.20	103.7	3.888	1.632	0.411	1.903
5.60	11.20	105.6	3.888	1.620	0.411	1.914
5.70	11.20	107.5	3.888	1.609	0.411	1.925
5.80	11.20	109.4	3.888	1.597	0.411	1.936
Variació a/b per RT constant						
ratio inicial= 1.867 desviació= .01						
a= 5.20/ 5.8 / .1	b= 11.2 / 11.8 / .1					
	11.20	98.1	3.888	1.672	0.411	1.867
	11.30	101.0	3.848	1.651	0.411	1.866
	11.40	104.0	3.808	1.630	0.411	1.865
	11.50	107.0	3.769	1.611	0.411	1.864
	11.50	109.0	3.769	1.599	0.411	1.875
	11.60	110.1	3.730	1.592	0.411	1.863
	11.60	112.1	3.730	1.580	0.411	1.873
	11.70	113.2	3.693	1.573	0.411	1.861
	11.70	115.2	3.693	1.562	0.411	1.872
	11.80	116.4	3.656	1.555	0.411	1.859
Variació a/b per S constant						
a= 5.2 / 5.8 / .1						
5.20	11.20	98.1	3.889	1.672	0.411	1.867
5.30	11.02	98.1	3.963	1.672	0.411	1.903
5.40	10.85	98.1	4.038	1.672	0.411	1.938
5.50	10.69	98.1	4.113	1.673	0.411	1.973
5.60	10.53	98.1	4.188	1.675	0.411	2.008
5.70	10.37	98.1	4.262	1.676	0.411	2.042
5.80	10.22	98.1	4.337	1.678	0.411	2.076

edifici: mbmesc
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= 1.426
c= .674 d= 0 f= 0
kn= 5 1.25 1.64 5 1.25 1.64 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 .3977 0 0
alfa= 1 1 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.20	11.20	98.1	3.391	1.630	0.411	1.662
Variació a amb b constant						
a= 5.20/ 5.8 / .1						
5.20	11.20	98.1	3.391	1.630	0.411	1.662
5.30	11.20	100.0	3.391	1.616	0.411	1.673
5.40	11.20	101.9	3.391	1.603	0.411	1.684
5.50	11.20	103.7	3.391	1.590	0.411	1.694
5.60	11.20	105.6	3.391	1.578	0.411	1.705
5.70	11.20	107.5	3.391	1.566	0.411	1.715
5.80	11.20	109.4	3.391	1.555	0.411	1.725

Variació a/b per RT constant
ratio inicial= 1.662 desviació= .01
a= 5.20/ 5.8 / .1 b= 11.2 / 11.8 / .1

11.20	98.1	3.391	1.630	0.411	1.662
11.30	101.0	3.356	1.609	0.411	1.661
11.40	104.0	3.321	1.589	0.411	1.660
11.40	105.9	3.321	1.576	0.411	1.671
11.50	107.0	3.287	1.570	0.411	1.659
11.50	109.0	3.287	1.558	0.411	1.669
11.60	110.1	3.253	1.551	0.411	1.658
11.60	112.1	3.253	1.539	0.411	1.668
11.70	113.2	3.221	1.533	0.411	1.656
11.70	115.2	3.221	1.522	0.411	1.666
11.80	116.4	3.188	1.516	0.411	1.655

Variació a/b per S constant
a= 5.2 / 5.8 / .1

5.20	11.20	98.1	3.391	1.630	0.411	1.662
5.30	11.02	98.1	3.457	1.629	0.411	1.694
5.40	10.85	98.1	3.522	1.628	0.411	1.727
5.50	10.69	98.1	3.587	1.628	0.411	1.759
5.60	10.53	98.1	3.652	1.629	0.411	1.790
5.70	10.37	98.1	3.717	1.629	0.411	1.822
5.80	10.22	98.1	3.783	1.630	0.411	1.853

variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= 1.426
= .704 d= 0 f= 0
n= 5 1.25 1.64 5 1.25 1.64 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
0
k= .1 .6 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
n= 0 0 0 0 0 0 0 0 0 0
r= .768 .1578 0 0

a	b	S	I	Gt	Gv	R.T.

---

ici original

5.20	11.20	98.1	4.838	1.608	0.411	2.396

ariació a amb b constant
= 5.20/ 5.8 / .1

5.20	11.20	98.1	4.838	1.608	0.411	2.396
5.30	11.20	100.0	4.838	1.595	0.411	2.412
5.40	11.20	101.9	4.838	1.582	0.411	2.428
5.50	11.20	103.7	4.838	1.569	0.411	2.443
5.60	11.20	105.6	4.838	1.557	0.411	2.459
5.70	11.20	107.5	4.838	1.545	0.411	2.473
5.80	11.20	109.4	4.838	1.534	0.411	2.488

ariació a/b per RT constant
atio inicial= 2.396 desviació= .01
= 5.20/ 5.8 / .1 b= 11.2 / 11.8 / .1

11.20	98.1	4.838	1.608	0.411	2.396
11.30	101.0	4.788	1.588	0.411	2.395
11.40	104.0	4.738	1.568	0.411	2.393
11.50	107.0	4.689	1.549	0.411	2.392
11.60	110.1	4.641	1.531	0.411	2.390
11.60	112.1	4.641	1.519	0.411	2.404
11.70	113.2	4.595	1.513	0.411	2.388
11.70	115.2	4.595	1.502	0.411	2.402

ariació a/b per S constant
= 5.2 / 5.8 / .1

5.20	11.20	98.1	4.838	1.608	0.411	2.396
5.30	11.02	98.1	4.931	1.607	0.411	2.443
5.40	10.85	98.1	5.025	1.606	0.411	2.491
5.50	10.69	98.1	5.118	1.606	0.411	2.537
5.60	10.53	98.1	5.211	1.606	0.411	2.584
5.70	10.37	98.1	5.304	1.606	0.411	2.629
5.80	10.22	98.1	5.397	1.607	0.411	2.675

edifici: mbmesc
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= 1.426
c= .769 d= 0 f= 0
kn= 5 1.25 1.64 5 .4 .78 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .6 .1 .2 .3 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 .137 0 0
alfa= .8 1.2 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	5.20	11.20	98.1	6.260	1.522	0.411	3.238

edifici: mbmesc
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= 1.426
c= 1 d= 0 f= 0
kn= 5 .4 .78 5 1.25 1.64 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .3 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 1 0 0
alfa= 1.2 .8 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	5.20	11.20	98.1	3.797	1.624	0.411	1.866

edifici: mbmesc
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= 1.426
c= .674 d= 0 f= 0
kn= 5 .4 .78 5 .4 .78 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .3 .1 .2 .3 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 .3977 0 0
alfa= 1 1 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	5.20	11.20	98.1	2.860	1.535	0.411	1.469

edifici: mbmesc
variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= 1.426
c= .704 d= 0 f= 0
kn= 5 1.25 1.64 5 .4 .78 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .6 .1 .2 .3 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 .1578 0 0
alfa= .9 1.1 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	5.20	11.20	98.1	4.733	1.549	0.411	2.415

```
44 REM *************** ESQUELET DE L'EDIFICI:mbmesc >CR1     ******************
45 REM
50 DO=CR1*(2.7*A*C*.7+1.35*A*.7)                          'façana 1 - Capt.transp.
Ri*s*t
52 DA=CR2*1.35*A*.7                                       'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*0                                 'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                                 'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*0                                 'patis    - Capt.transp. CRi*s*t
60 DP=CR1*1.35*A*CK2*.6                                   'façana 1 - Capt.opacs  CRi*s*abs*
kn
62 DD=CR2*1.35*A*CK5*.6                                   'façana 2 - Capt.opacs  CRi*s*abs*

64 DF=CR3*0                                 'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*0                                 'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DS=.05*0                                 'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=2.4*0                                'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DO=(2*A*B-3.538*A)                       'superfície en planta   funció a i b
74 DU=A1*(4.05*A*K1+1.35*A*K2+.116*A*B*K3)                                'façana 1 - T
nsmissió  ai*s*kn
76 DK=A2*(1.35*A*K4+1.35*A*K5+.199*A*B*K6)                                'façana 2 - T
nsmissió  ai*s*kn
78 DL=A3*0                                  'façana 3 - Transmissió  ai*s*kn
80 DM=A4*0                                  'façana 4 - Transmissió  ai*s*kn
82 DH=.8*0                                  'patis    - Transmissió  ai*s*kn
84 DV=0                                     'terra    - Transmissió  s*kn
86 DW=(18.61*B*K7)+(K8*(2*A*B-3.538*A))                                   'locals   - T
nsmissió  s*kn
88 DX=0                                     'coberta  - Transmissió  s*kn
89 RETURN
90 B=(98.08+3.538*A)/(2*A)          'valor b per S constant   (funció de a)
```

edifici: mbmesc
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 83.22
c= .643 d= 0 f= 0
kn= 5 1.25 1.64 5 1.25 1.64 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 .756 0 0
alfa= .9 .8 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.20	11.20	98.1	5.628	1.379	23.967	0.222
Variació a amb b constant						
a= 5.20/ 5.8 / .1						
5.20	11.20	98.1	5.628	1.379	23.967	0.222
5.30	11.20	100.0	5.628	1.368	23.967	0.222
5.40	11.20	101.9	5.628	1.357	23.967	0.222
5.50	11.20	103.7	5.628	1.346	23.967	0.222
5.60	11.20	105.6	5.628	1.336	23.967	0.222
5.70	11.20	107.5	5.628	1.326	23.967	0.222
5.80	11.20	109.4	5.628	1.317	23.967	0.222
Variació a/b per RT constant						
ratio inicial= .222 desviació= .01						
a= 5.20/ 5.8 / .1	b= 11.2 / 11.8 / .1					
	11.20	98.1	5.628	1.379	23.967	0.222
	11.30	99.1	5.569	1.373	23.967	0.219
	11.40	100.2	5.511	1.367	23.967	0.217
	11.50	101.2	5.454	1.361	23.967	0.215
	11.60	102.2	5.399	1.356	23.967	0.213
	11.20	100.0	5.628	1.368	23.967	0.222
	11.30	101.0	5.569	1.362	23.967	0.219
	11.40	102.1	5.511	1.356	23.967	0.217
	11.50	103.1	5.454	1.350	23.967	0.215
	11.60	104.2	5.399	1.344	23.967	0.213
	11.20	101.9	5.628	1.357	23.967	0.222
	11.30	102.9	5.569	1.351	23.967	0.219
	11.40	104.0	5.511	1.345	23.967	0.217
	11.50	105.1	5.454	1.339	23.967	0.215
	11.60	106.2	5.399	1.334	23.967	0.213
	11.20	103.7	5.628	1.346	23.967	0.222
	11.30	104.8	5.569	1.340	23.967	0.220
	11.40	105.9	5.511	1.334	23.967	0.217
	11.50	107.0	5.454	1.329	23.967	0.215
	11.60	108.1	5.399	1.323	23.967	0.213
	11.20	105.6	5.628	1.336	23.967	0.222
	11.30	106.7	5.569	1.330	23.967	0.220
	11.40	107.9	5.511	1.324	23.967	0.217
	11.50	109.0	5.454	1.319	23.967	0.215
	11.60	110.1	5.399	1.313	23.967	0.213
	11.20	107.5	5.628	1.326	23.967	0.222
	11.30	108.7	5.569	1.320	23.967	0.220
	11.40	109.8	5.511	1.315	23.967	0.217
	11.50	110.9	5.454	1.309	23.967	0.215
	11.60	112.1	5.399	1.303	23.967	0.213
	11.20	109.4	5.628	1.317	23.967	0.222
	11.30	110.6	5.569	1.311	23.967	0.220
	11.40	111.7	5.511	1.305	23.967	0.218
	11.50	112.9	5.454	1.299	23.967	0.215
	11.60	114.0	5.399	1.294	23.967	0.213

Variació a/b per S constant
a= 5.2 / 5.8 / .1

5.20	11.20	98.1	5.628	1.379	23.967	0.222
5.30	11.02	98.1	5.736	1.379	23.967	0.226
5.40	10.85	98.1	5.844	1.379	23.967	0.230
5.50	10.69	98.1	5.952	1.379	23.967	0.234
5.60	10.53	98.1	6.061	1.380	23.967	0.239
5.70	10.37	98.1	6.169	1.381	23.967	0.243
5.80	10.22	98.1	6.277	1.382	23.967	0.247

edifici: mbmesc
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 83.22
c= .187 d= 0 f= 0
kn= 5 1.25 1.64 5 1.25 1.64 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 1 0 0
alfa= .8 .9 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
5.20	11.20	98.1	4.196	1.358	23.967	0.165
Variació a amb b constant						
a= 5.20/ 5.8 / .1						
5.20	11.20	98.1	4.196	1.358	23.967	0.165
5.30	11.20	100.0	4.196	1.347	23.967	0.165
5.40	11.20	101.9	4.196	1.336	23.967	0.165
5.50	11.20	103.7	4.196	1.325	23.967	0.165
5.60	11.20	105.6	4.196	1.315	23.967	0.165
5.70	11.20	107.5	4.196	1.305	23.967	0.166
5.80	11.20	109.4	4.196	1.296	23.967	0.166
Variació a/b per RT constant						
ratio inicial= .165 desviació= .01						
a= 5.20/ 5.8 / .1	b= 11.2 / 11.8 / .1					
	11.20	98.1	4.196	1.358	23.967	0.165
	11.30	99.1	4.152	1.352	23.967	0.164
	11.40	100.2	4.109	1.347	23.967	0.162
	11.50	101.2	4.067	1.341	23.967	0.160
	11.60	102.2	4.026	1.336	23.967	0.159
	11.70	103.3	3.985	1.330	23.967	0.157
	11.20	100.0	4.196	1.347	23.967	0.165
	11.30	101.0	4.152	1.341	23.967	0.164
	11.40	102.1	4.109	1.335	23.967	0.162
	11.50	103.1	4.067	1.330	23.967	0.160
	11.60	104.2	4.026	1.324	23.967	0.159
	11.70	105.3	3.985	1.319	23.967	0.157
	11.80	106.3	3.945	1.314	23.967	0.156
	11.20	101.9	4.196	1.336	23.967	0.165
	11.30	102.9	4.152	1.330	23.967	0.164
	11.40	104.0	4.109	1.324	23.967	0.162
	11.50	105.1	4.067	1.319	23.967	0.160
	11.60	106.2	4.026	1.313	23.967	0.159
	11.70	107.3	3.985	1.308	23.967	0.157
	11.80	108.3	3.945	1.303	23.967	0.156
	11.20	103.7	4.196	1.325	23.967	0.165
	11.30	104.8	4.152	1.319	23.967	0.164
	11.40	105.9	4.109	1.314	23.967	0.162
	11.50	107.0	4.067	1.308	23.967	0.160
	11.60	108.1	4.026	1.303	23.967	0.159
	11.70	109.2	3.985	1.298	23.967	0.157
	11.80	110.3	3.945	1.292	23.967	0.156
	11.20	105.6	4.196	1.315	23.967	0.165

11.30	106.7	4.152	1.309	23.967	0.164
11.40	107.9	4.109	1.304	23.967	0.162
11.50	109.0	4.067	1.298	23.967	0.160
11.60	110.1	4.026	1.293	23.967	0.159
11.70	111.2	3.985	1.288	23.967	0.157
11.80	112.3	3.945	1.282	23.967	0.156
11.20	107.5	4.196	1.305	23.967	0.166
11.30	108.7	4.152	1.300	23.967	0.164
11.40	109.8	4.109	1.294	23.967	0.162
11.50	110.9	4.067	1.288	23.967	0.161
11.60	112.1	4.026	1.283	23.967	0.159
11.70	113.2	3.985	1.278	23.967	0.157
11.80	114.4	3.945	1.273	23.967	0.156
11.20	109.4	4.196	1.296	23.967	0.166
11.30	110.6	4.152	1.290	23.967	0.164
11.40	111.7	4.109	1.284	23.967	0.162
11.50	112.9	4.067	1.279	23.967	0.161
11.60	114.0	4.026	1.274	23.967	0.159
11.70	115.2	3.985	1.268	23.967	0.157
11.80	116.4	3.945	1.263	23.967	0.156

Variació a/b per S constant
a= 5.2 / 5.8 / .1

5.20	11.20	98.1	4.197	1.358	23.967	0.165
5.30	11.02	98.1	4.277	1.357	23.967	0.168
5.40	10.85	98.1	4.358	1.357	23.967	0.172
5.50	10.69	98.1	4.439	1.357	23.967	0.175
5.60	10.53	98.1	4.519	1.357	23.967	0.178
5.70	10.37	98.1	4.600	1.358	23.967	0.181
5.80	10.22	98.1	4.681	1.358	23.967	0.184

edifici: mbmesc
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 43.032
c= .739 d= 0 f= 0
kn= 5 1.25 1.64 5 1.25 1.64 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 1.345 0 0
alfa= 1 1 0 0

a	b	S	I	Gt	Gv	R.T.

Edifici original

5.20	11.20	98.1	8.646	1.464	12.393	0.623

Variació a amb b constant
a= 5.20/ 5.8 / .1

5.20	11.20	98.1	8.646	1.464	12.393	0.623
5.30	11.20	100.0	8.646	1.453	12.393	0.624
5.40	11.20	101.9	8.646	1.442	12.393	0.624
5.50	11.20	103.7	8.646	1.432	12.393	0.625
5.60	11.20	105.6	8.646	1.421	12.393	0.625
5.70	11.20	107.5	8.646	1.412	12.393	0.626
5.80	11.20	109.4	8.646	1.402	12.393	0.626

Variació a/b per RT constant
ratio inicial= .623 desviació= .01
a= 5.20/ 5.8 / .1 b= 11.2 / 11.3 / .1

11.20	98.1	8.646	1.464	12.393	0.623
11.30	99.1	8.556	1.458	12.393	0.617
11.20	100.0	8.646	1.453	12.393	0.624
11.30	101.0	8.556	1.446	12.393	0.618
11.20	101.9	8.646	1.442	12.393	0.624
11.30	102.9	8.556	1.435	12.393	0.618
11.20	103.7	8.646	1.432	12.393	0.625
11.30	104.8	8.556	1.425	12.393	0.619
11.20	105.6	8.646	1.421	12.393	0.625
11.30	106.7	8.556	1.415	12.393	0.619
11.20	107.5	8.646	1.412	12.393	0.626
11.30	108.7	8.556	1.405	12.393	0.620
11.20	109.4	8.646	1.402	12.393	0.626
11.30	110.6	8.556	1.395	12.393	0.620
11.40	111.7	8.467	1.389	12.393	0.614

Variació a/b per S constant
a= 5.2 / 5.8 / .1

5.20	11.20	98.1	8.647	1.464	12.393	0.623
5.30	11.02	98.1	8.813	1.466	12.393	0.635
5.40	10.85	98.1	8.979	1.467	12.393	0.647
5.50	10.69	98.1	9.145	1.469	12.393	0.659
5.60	10.53	98.1	9.312	1.471	12.393	0.671
5.70	10.37	98.1	9.478	1.473	12.393	0.683
5.80	10.22	98.1	9.644	1.476	12.393	0.695

edifici: mbmesc
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 76.956
c= .645 d= 0 f= 0
kn= 5 1.25 1.64 5 1.25 1.64 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .6 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 1.07458 0 0
alfa= .95 .9 0 0

a	b	S	I	Gt	Gv	R.T.

Edifici original

5.20	11.20	98.1	7.309	1.422	22.163	0.309

Variació a amb b constant
a= 5.20/ 5.8 / .1

5.20	11.20	98.1	7.309	1.422	22.163	0.309
5.30	11.20	100.0	7.309	1.410	22.163	0.310
5.40	11.20	101.9	7.309	1.400	22.163	0.310
5.50	11.20	103.7	7.309	1.389	22.163	0.310
5.60	11.20	105.6	7.309	1.379	22.163	0.310
5.70	11.20	107.5	7.309	1.369	22.163	0.310
5.80	11.20	109.4	7.309	1.360	22.163	0.310

Variació a/b per RT constant
ratio inicial= .309 desviació= .01
a= 5.20/ 5.8 / .1 b= 11.2 / 11.8 / .1

11.20	98.1	7.309	1.422	22.163	0.309
11.30	99.1	7.232	1.415	22.163	0.306
11.40	100.2	7.157	1.409	22.163	0.303
11.50	101.2	7.084	1.403	22.163	0.300
11.20	100.0	7.309	1.410	22.163	0.310
11.30	101.0	7.232	1.404	22.163	0.306
11.40	102.1	7.157	1.398	22.163	0.303
11.50	103.1	7.084	1.392	22.163	0.300
11.20	101.9	7.309	1.400	22.163	0.310
11.30	102.9	7.232	1.393	22.163	0.307
11.40	104.0	7.157	1.387	22.163	0.303
11.50	105.1	7.084	1.381	22.163	0.300
11.20	103.7	7.309	1.389	22.163	0.310
11.30	104.8	7.232	1.383	22.163	0.307
11.40	105.9	7.157	1.376	22.163	0.304
11.50	107.0	7.084	1.370	22.163	0.301
11.20	105.6	7.309	1.379	22.163	0.310
11.30	106.7	7.232	1.372	22.163	0.307
11.40	107.9	7.157	1.366	22.163	0.304
11.50	109.0	7.084	1.360	22.163	0.301
11.20	107.5	7.309	1.369	22.163	0.310
11.30	108.7	7.232	1.363	22.163	0.307
11.40	109.8	7.157	1.356	22.163	0.304
11.50	110.9	7.084	1.350	22.163	0.301
11.20	109.4	7.309	1.360	22.163	0.310
11.30	110.6	7.232	1.353	22.163	0.307
11.40	111.7	7.157	1.347	22.163	0.304
11.50	112.9	7.084	1.341	22.163	0.301

Variació a/b per S constant
a= 5.2 / 5.8 / .1

5.20	11.20	98.1	7.309	1.422	22.163	0.309
5.30	11.02	98.1	7.450	1.422	22.163	0.315
5.40	10.85	98.1	7.590	1.423	22.163	0.321
5.50	10.69	98.1	7.731	1.424	22.163	0.327
5.60	10.53	98.1	7.872	1.425	22.163	0.333
5.70	10.37	98.1	8.012	1.427	22.163	0.339
5.80	10.22	98.1	8.153	1.429	22.163	0.345

edifici: bio mbmbesc
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 83.22
c= .643 d= 0 f= 0
kn= 5 1.25 1.64 5 .4 .78 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .6 .1 .2 .3 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 .756 0 0
alfa= .9 .8 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	5.20	11.20	98.1	5.258	1.336	23.967	0.207

edifici: bio mbmesc
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 83.22
c= .187 d= 0 f= 0
kn= 5 .4 .78 5 1.25 1.64 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .3 .1 .5 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 1 0 0
alfa= .8 .9 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	5.20	11.20	98.1	3.827	1.326	23.967	0.151

edifici: bio mbmesc
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 43.032
c= .95 d= .9 f= 0
kn= 5 .4 .78 5 .4 .78 1.7 1.35 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .3 .1 .2 .3 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 1.345 0 0
alfa= 1 1 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	5.20	11.20	98.1	8.140	1.372	12.393	0.591

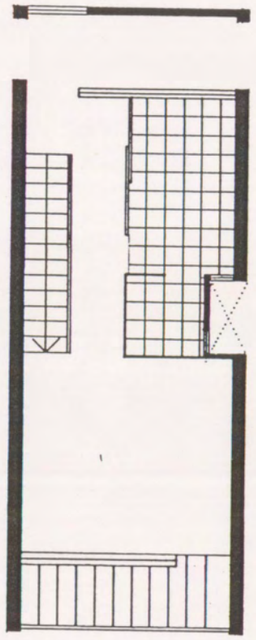
edifici: bio mbmesc
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 76.956
c= .645 d= 0 f= 0
kn= 5 1.25 1.64 5 .4 .78 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .6 .1 .2 .3 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 1.07458 0 0
alfa= .95 .9 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	5.20	11.20	98.1	6.784	1.373	22.163	0.288

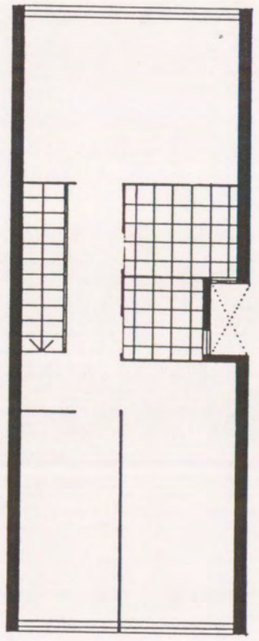
2.2.B.5

CASA SUBVENCIONADA EN MONTBAU (B)

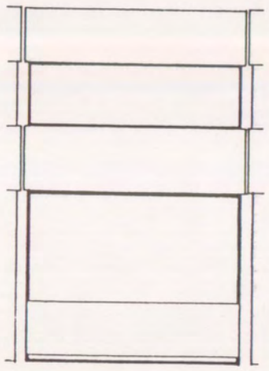
J. SUBIAS, G. GIRALDEZ, P. LOPEZ IÑIGO



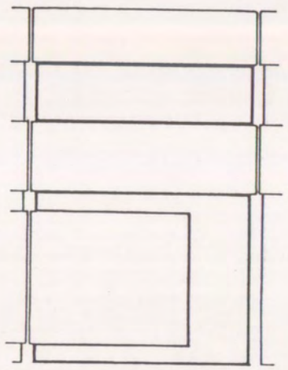
PB



PI



AI



A2

DATOS GEOMETRICOS

a = 3,45 m	(3,45/4,00 m)
b = 10,24 m	(10,24/11,24 m)
S = 55,35 m²	V = 147,66 m3
Si/S = 0,26	Sit/Slo = 0,64

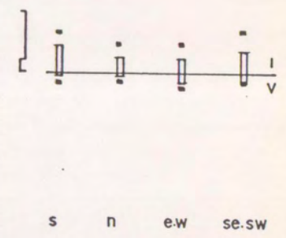
RATIOS TERMICOS (°C)

	sin aislar	aislado
invierno		
S	1,91	2,10
N	1,08	1,26
E	0,93	1,22
W	0,93	1,22
NE	1,51	1,67
SW	1,51	1,67
verano		
S	0,28	0,29
N	0,19	0,22
E	0,72	0,84
W	0,72	0,84
SE	0,47	0,50
SW	0,47	0,50

MASA TERMICA (kcal/°C m3)

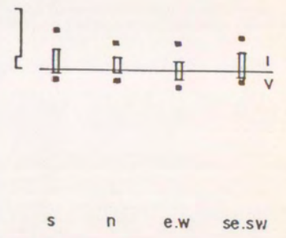
80,27 87,18

RT CON

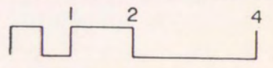


s n e.w se.sw

RT SIN



s n e.w se.sw



BARCELONA 85-88

E.T.S.A.B. U.P.C.

TESIS DOCTORAL · BIOCLIMATISMO Y TIPO ARQUITECTONICO EN CATALUÑA EN EL PERIODO 1930 1985 · VICTOR SEGUI SANTANA

	CASA SUBVENCIONADA EN MONTBAU (B). J SUBIAS G.GIRALDEZ P. LOPEZ INIGO.	22B5

CAPTORES TRANSPARENTES	1	V. SUR	S	2.4.A.C
			t	0.7
			CR	CR1
	2	V. SUR	S	0.8×A
			t	0.7
			CR	CR1
	3	V. NORTE	S	0.8·A
			t	0.7
			CR	CR2
	4	V. PATIO	S	0.96
			t	0.7
			CR	PATIO
	5		S	
			t	
			CR	
	6		S	
			t	
			CR	
CAPTORES OPACOS	1	P. SUR	S	2.8A
			CK	CK2
			a	0.6
			CR	CR1
	2	P. NORTE	S	2.2A
			CK	CK4
			a	0.6
			CR	CR2
	3	P PATIO	S	5.59
			CK	CK6
			a	06
			CR	PATIO
	4		S	
			CK	
			a	
			CR	
	5		S	
			CK	
			a	
			CR	
	6		S	
			CK	
			a	
			CR	
	7		S	
			CK	
			a	
			CR	
	8		S	
			CK	
			a	
			CR	
	9		S	
			CK	
			a	
			CR	
CUBIERTA	1		S	
			CK	
			a	

TRANSMISION FACHADAS	1	V. SUR	S	3.2.A
			K	K1
			K	K1
	2	P. SUR	S	2.8 x A
			K	K2
			K	K1
	3	V. NORTE	S	0.8.A
			K	K3
			K	K2
	4	P. NORTE	S	0.8.A
			K	K4
			K	K2
	5	P. PATIO	S	0.48
			K	K5
			K	PATIO
	6	P. PATIO	S	11.19
			K	K6
			K	PATIO
	7		S	
			K	
			K	
	8		S	
			K	
			K	
	9		S	
			K	
			K	
	10		S	
			K	
			K	
	11		S	
			K	
			K	
	12		S	
			K	
			K	
	13		S	
			K	
			K	
	14		S	
			K	
			K	
	15		S	
			K	
			K	
	16		S	
			K	
			K	

INFILTRACIONES			S	18.03
			K	1.46
SEPARACION TERRENO	1		S	
			K	
	2		S	
			K	
SEPARACION OTROS LOCALES	1	MEDIAN.	S	10.27B
			K	K7
	2	P. GALERIA	S	1.752A
			K	K8
	3	V. GALERIA	S	0.461A
			K	K9
	4	PUERTA G	S	1.68
			K	K10
	5	FORJADO	S	(2 A.B-0.6.4A)
			K	
TRANSMISION PIEL HORIZONT. CUBIERTA	1	FORS EXT	S	2.4.A
			K	K12
	2		S	
			K	

SUPERFICIE EN PLANTA	(2.A.B - 0.12 - 4A)

CASA SUBVENCIONADA EN MONTBAU (B) J. SUBIAS G. GIRALDEZ P. LOPEZ IÑIGO. 2285

VARIABLES GEOMETRICAS	A	B	Amin.	Amax.	I	Bmin.	Bmax.	I	DESVIACION	B para S Cte.	VOLUMEN	SUPERFICIE
	3.45	10.24	3'45	4	0.05	10.24	11.24	0.10	0.01	$B=\frac{(55.47+4.4A)}{(2.A)}$	147.66	55.35

R=2800	INVIERNO	K_1	K_2	K_3	K_4	K_5	K_6	K_7	K_8	K_9	K_{10}	K_{11}	K_{12}	K_{13}	K_{14}	K_{15}	K_{16}	K_{17}	K_{18}	VERANO	R=2050
		4.4	2.5	4.4	2.5	5	2.5	1.92	1.92	3.84	1.6	1.34	1.64								

O	RH	COEFICIENTES								COEFICIENTES DE TRANSMISION K																		COEFICIENTES								RH	O
S		CR_1	1	CR_2	0.137	CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3	0.756	CR_2	1	CR_1		S
		K_1	0.8	K_2	1.2.	K_3		K_4																				K_4		K_3	0.8	K_2	0.9	K_1		
	1.46	C	0.53	D		F		G		4.4	2.5	4.4	0.48	5	0.48	1.92	1.92	3.84	1.6	1.34	0.78							G		F		D	0.51	C	40.896	
N		CR_1	0.137	CR_2	1	CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3	1	CR_2	0.756	CR_1		N
		K_1	1.2	K_2	0.8	K_3		K_4																				X_4		K_3	0.9	K_2	0.8	K_1		
	1.46	C	1	D		F		G		4.4	0.48	4.4	2.5	5	0.48	1.92	1.92	3.84	1.6	1.34	0.78							G		F		D	0.187	C	40.896	
E		CR_1	0.3977	CR_2	0.3977	CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3	1.345	CR_2	1345	CR_1		E
		K_1	1	K_2	1	K_3		K_4																				K_4		K_3	1	K_2	1	K_1		
	146	C	0.44	D		F		G		4.4	0.48	4.4	0.48	5	0.48	1.92	1.92	3.84	1.6	1.34	0.78							G		F		D	0.68	C	23.641	
W		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4	-	CR_3		CR_2		CR_1		W
		K_1		K_2		K_3		K_4																				K_4		K_3		K_2		K_1		
		C		D		F		G																				G		F		D		C		
SE		CR_1	0.768	CR_2	0.1578	CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3	1.07458	CR_2	1.2469	CR_1		SE
		K_1	0.9	K_2	1.1	K_3		K_4																				K_4		K_3	0.9	K_2	0.95	K_1		
	1.46	C	0.55	D		F		G		4.4	2.5	4.4	0.48	5	0.48	1.92	1.92	3.84	1.6	1.34	0.78							G		F		D	0.65	C	33.391	
SW		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2		CR_1		SW
		K_1		K_2		K_3		K_4																				K_4		K_3		K_2		K_1		
		C		D		F		G																				G		F		D		C		

```
44 REM *************** ESQUELET DE L'EDIFICI:Montbau.2 HIVERN ****************
45 REM
50 DO=CR1*(2.4*A*C*.7+.8*A*.7)          'façana 1 - Capt.transp. CRi*s*t
52 DA=CR2*.8*A*.7                       'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*0                             'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                             'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*.96*.7                        'patis    - Capt.transp. CRi*s*t
60 DP=CR1*2.8*A*CK2*.6                  'façana 1 - Capt.opacs  CRi*s*abs*ckn
62 DD=CR2*2.2*A*CK4*.6                  'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*0                             'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*0                             'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*5.59*CK6*.6                   'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=.52*0                             'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=(2*A*B-.12-4.4*A)  'superfície en planta   funció a i b
74 DU=A1*(3.2*A*K1+2.8*A*K2)            'façana 1 - Transmissió  ai*s*kn
76 DK=A2*(.8*A*K3+.8*A*K4)              'façana 2 - Transmissió  ai*s*kn
78 DL=A3*0                              'façana 3 - Transmissió  ai*s*kn
80 DM=A4*0                              'façana 4 - Transmissió  ai*s*kn
82 DH=.8*(.48*K5+11.19*K6)              'patis    - Transmissió  ai*s*kn
84 DV=0                                 'terra    - Transmissió  s*kn
86 DW= 10.277*B*K7+1.752*A*K8+.461*A*K9+1.68*K10+(2*A*B-.6-4.4*A)*K11
          'locals   - Transmissió  s*kn
88 DX= 2.4*A*K12                        'coberta  - Transmissió  s*kn
89 RETURN
90 B=(55.47+4.4*A)/(2*A)                'valor b per S constant   (funció de a)
```

edifici: MOntbau
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= 1.46
c= .53 d= 0 f= 0
kn= 4.4 2.5 4.4 2.5 5 2.5 1.92 1.92 3.84 1.6 1.34 1.64 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .1 .1 .6 .6 .1 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 .137 0 0
alfa= .8 1.2 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.45	10.24	55.4	4.188	1.770	0.420	1.911
Variació a amb b constant						
a= 3.45/ 4 / .05						
3.45	10.24	55.4	4.188	1.770	0.420	1.911
3.50	10.24	56.2	4.187	1.757	0.420	1.922
3.55	10.24	57.0	4.186	1.744	0.420	1.933
3.60	10.24	57.8	4.186	1.732	0.420	1.944
3.65	10.24	58.6	4.185	1.720	0.420	1.955
3.70	10.24	59.4	4.185	1.709	0.420	1.965
3.75	10.24	60.2	4.184	1.697	0.420	1.975
3.80	10.24	61.0	4.184	1.686	0.420	1.985
3.85	10.24	61.8	4.183	1.675	0.420	1.995
3.90	10.24	62.6	4.183	1.665	0.420	2.005
3.95	10.24	63.4	4.182	1.655	0.420	2.015
4.00	10.24	64.2	4.182	1.645	0.420	2.024
Variació a/b per RT constant						
ratio inicial= 1.911 desviació= .01						
= 3.45/ 4 / .05	b= 10.24 / 11.24 / .1					
	10.24	55.4	4.188	1.770	0.420	1.911
	10.34	56.9	4.136	1.746	0.420	1.909
	10.34	57.7	4.135	1.733	0.420	1.920
	10.44	58.4	4.085	1.722	0.420	1.906
	10.44	59.2	4.084	1.710	0.420	1.917
	10.54	59.9	4.035	1.699	0.420	1.903
	10.54	60.8	4.034	1.687	0.420	1.914
	10.64	62.3	3.986	1.665	0.420	1.910
	10.64	63.2	3.985	1.654	0.420	1.920
	10.74	63.9	3.939	1.644	0.420	1.907
	10.74	64.8	3.938	1.633	0.420	1.917
	10.84	65.5	3.893	1.624	0.420	1.904
	10.84	66.4	3.892	1.613	0.420	1.913
	10.94	68.1	3.847	1.593	0.420	1.910
	10.94	68.9	3.847	1.584	0.420	1.919
	11.04	69.7	3.803	1.574	0.420	1.906
	11.04	70.6	3.803	1.565	0.420	1.915
	11.14	71.4	3.760	1.556	0.420	1.902
Variació a/b per S constant						
a= 3.45 / 4 / .05						
3.45	10.24	55.3	4.188	1.770	0.420	1.911
3.50	10.12	55.4	4.248	1.771	0.420	1.938
3.55	10.01	55.3	4.309	1.771	0.420	1.965
3.60	9.90	55.3	4.369	1.772	0.420	1.992
3.65	9.80	55.3	4.429	1.773	0.420	2.018
3.70	9.70	55.4	4.489	1.775	0.420	2.045
3.75	9.60	55.4	4.549	1.776	0.420	2.071
3.80	9.50	55.4	4.609	1.778	0.420	2.096
3.85	9.40	55.4	4.670	1.780	0.420	2.122
3.90	9.31	55.4	4.730	1.782	0.420	2.147
3.95	9.22	55.4	4.790	1.784	0.420	2.173
4.00	9.13	55.4	4.850	1.786	0.420	2.198

edifici: Montbau
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= 1.46
c= 1 d= 0 f= 0
kn= 4.4 2.5 4.4 2.5 5 2.5 1.92 1.92 3.84 1.6 1.34 1.64 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .1 .1 .6 .6 .1 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 1 0 0
alfa= 1.2 .8 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.45	10.24	55.4	2.512	1.903	0.420	1.081
Variació a amb b constant						
a= 3.45/ 4 / .05						
3.45	10.24	55.4	2.512	1.903	0.420	1.081
3.50	10.24	56.2	2.512	1.890	0.420	1.086
3.55	10.24	57.0	2.511	1.878	0.420	1.092
3.60	10.24	57.8	2.510	1.866	0.420	1.098
3.65	10.24	58.6	2.510	1.854	0.420	1.103
3.70	10.24	59.4	2.509	1.842	0.420	1.109
3.75	10.24	60.2	2.509	1.831	0.420	1.114
3.80	10.24	61.0	2.508	1.820	0.420	1.119
3.85	10.24	61.8	2.508	1.809	0.420	1.124
3.90	10.24	62.6	2.507	1.799	0.420	1.129
3.95	10.24	63.4	2.507	1.789	0.420	1.134
4.00	10.24	64.2	2.507	1.779	0.420	1.139
Variació a/b per RT constant						
ratio inicial= 1.081 desviació= .01						
a= 3.45/ 4 / .05	b= 10.24 / 11.24 / .1					
	10.24	55.4	2.512	1.903	0.420	1.081
	10.34	56.0	2.481	1.890	0.420	1.073
	10.24	56.2	2.512	1.890	0.420	1.086
	10.34	56.9	2.481	1.877	0.420	1.079
	10.44	57.6	2.450	1.865	0.420	1.072
	10.34	57.7	2.480	1.865	0.420	1.085
	10.44	58.4	2.450	1.852	0.420	1.077
	10.34	58.5	2.480	1.853	0.420	1.090
	10.44	59.2	2.449	1.840	0.420	1.083
	10.54	59.9	2.420	1.828	0.420	1.076
	10.44	60.0	2.449	1.828	0.420	1.088
	10.54	60.8	2.419	1.816	0.420	1.081
	10.64	61.5	2.391	1.804	0.420	1.074
	10.54	61.6	2.419	1.805	0.420	1.087
	10.64	62.3	2.390	1.793	0.420	1.079
	10.74	63.1	2.362	1.781	0.420	1.072
	10.64	63.2	2.390	1.782	0.420	1.085
	10.74	63.9	2.362	1.770	0.420	1.078
	10.64	64.0	2.389	1.771	0.420	1.090
	10.74	64.8	2.361	1.759	0.420	1.083
	10.84	65.5	2.334	1.748	0.420	1.076
	10.74	65.6	2.361	1.749	0.420	1.088
	10.84	66.4	2.333	1.738	0.420	1.081
	10.94	67.2	2.307	1.727	0.420	1.074
	10.84	67.3	2.333	1.728	0.420	1.086
	10.94	68.1	2.306	1.717	0.420	1.079
	11.04	68.8	2.280	1.706	0.420	1.072
	10.84	68.1	2.333	1.718	0.420	1.090
	10.94	68.9	2.306	1.707	0.420	1.083
	11.04	69.7	2.280	1.696	0.420	1.077
	10.94	69.8	2.305	1.697	0.420	1.088
	11.04	70.6	2.279	1.687	0.420	1.081
	11.14	71.4	2.254	1.676	0.420	1.074

Variació a/b per S constant
a= 3.45 / 4 / .05

3.45	10.24	55.3	2.512	1.903	0.420	1.081
3.50	10.12	55.4	2.548	1.906	0.420	1.095
3.55	10.01	55.3	2.584	1.909	0.420	1.109
3.60	9.90	55.3	2.620	1.911	0.420	1.123
3.65	9.80	55.3	2.656	1.915	0.420	1.137
3.70	9.70	55.4	2.692	1.918	0.420	1.151
3.75	9.60	55.4	2.728	1.921	0.420	1.164
3.80	9.50	55.4	2.764	1.925	0.420	1.178
3.85	9.40	55.4	2.800	1.929	0.420	1.191
3.90	9.31	55.4	2.836	1.933	0.420	1.204
3.95	9.22	55.4	2.871	1.937	0.420	1.217
4.00	9.13	55.4	2.907	1.942	0.420	1.230

edifici: Montbau
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= 1.46
c= .44 d= 0 f= 0
kn= 4.4 2.5 4.4 2.5 5 2.5 1.92 1.92 3.84 1.6 1.34 1.64 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .1 .1 .6 .6 .1 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 .3977 0 0
alfa= 1 1 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.45	10.24	55.4	2.117	1.837	0.420	0.937
Variació a amb b constant						
a= 3.45/ 4 / .05						
3.45	10.24	55.4	2.117	1.837	0.420	0.937
3.50	10.24	56.2	2.116	1.824	0.420	0.942
3.55	10.24	57.0	2.116	1.811	0.420	0.947
3.60	10.24	57.8	2.115	1.799	0.420	0.952
3.65	10.24	58.6	2.114	1.787	0.420	0.957
3.70	10.24	59.4	2.114	1.775	0.420	0.962
3.75	10.24	60.2	2.113	1.764	0.420	0.967
3.80	10.24	61.0	2.113	1.753	0.420	0.972
3.85	10.24	61.8	2.113	1.742	0.420	0.976
3.90	10.24	62.6	2.112	1.732	0.420	0.981
3.95	10.24	63.4	2.112	1.722	0.420	0.985
4.00	10.24	64.2	2.111	1.712	0.420	0.990
Variació a/b per RT constant						
ratio inicial= .937 desviació= .01						
a= 3.45/ 4 / .05	b= 10.24 / 11.24 / .1					
	10.24	55.4	2.117	1.837	0.420	0.937
	10.34	56.0	2.091	1.824	0.420	0.931
	10.24	56.2	2.116	1.824	0.420	0.942
	10.34	56.9	2.090	1.812	0.420	0.936
	10.44	57.6	2.065	1.800	0.420	0.929
	10.34	57.7	2.089	1.799	0.420	0.941
	10.44	58.4	2.064	1.787	0.420	0.934
	10.54	59.1	2.039	1.776	0.420	0.928
	10.34	58.5	2.089	1.787	0.420	0.946
	10.44	59.2	2.064	1.775	0.420	0.939
	10.54	59.9	2.039	1.763	0.420	0.933
	10.44	60.0	2.063	1.763	0.420	0.944
	10.54	60.8	2.038	1.752	0.420	0.938
	10.64	61.5	2.014	1.740	0.420	0.932
	10.54	61.6	2.038	1.740	0.420	0.943
	10.64	62.3	2.014	1.729	0.420	0.936
	10.74	63.1	1.990	1.718	0.420	0.930
	10.64	63.2	2.013	1.718	0.420	0.941
	10.74	63.9	1.989	1.707	0.420	0.935
	10.84	64.7	1.966	1.697	0.420	0.928
	10.64	64.0	2.013	1.707	0.420	0.945
	10.74	64.8	1.989	1.696	0.420	0.939
	10.84	65.5	1.966	1.686	0.420	0.933
	10.74	65.6	1.989	1.686	0.420	0.944
	10.84	66.4	1.966	1.675	0.420	0.937
	10.94	67.2	1.943	1.665	0.420	0.931
	10.84	67.3	1.965	1.665	0.420	0.942
	10.94	68.1	1.943	1.655	0.420	0.935
	11.04	68.8	1.921	1.645	0.420	0.929
	10.84	68.1	1.965	1.655	0.420	0.946
	10.94	68.9	1.942	1.645	0.420	0.940
	11.04	69.7	1.920	1.635	0.420	0.934
	10.94	69.8	1.942	1.636	0.420	0.944
	11.04	70.6	1.920	1.626	0.420	0.938
	11.14	71.4	1.898	1.616	0.420	0.932
Variació a/b per S constant						
a= 3.45 / 4 / .05						
3.45	10.24	55.3	2.117	1.837	0.420	0.937
3.50	10.12	55.4	2.147	1.838	0.420	0.950
3.55	10.01	55.3	2.177	1.840	0.420	0.963
3.60	9.90	55.3	2.207	1.842	0.420	0.975
3.65	9.80	55.3	2.238	1.844	0.420	0.988
3.70	9.70	55.4	2.268	1.846	0.420	1.000
3.75	9.60	55.4	2.298	1.849	0.420	1.012
3.80	9.50	55.4	2.328	1.851	0.420	1.024
3.85	9.40	55.4	2.358	1.854	0.420	1.036
3.90	9.31	55.4	2.388	1.857	0.420	1.048
3.95	9.22	55.4	2.419	1.860	0.420	1.060
4.00	9.13	55.4	2.449	1.864	0.420	1.071

edifici: Montbau
variant 4 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= 1.46
c= .55 d= 0 f= 0
kn= 4.4 2.5 4.4 2.5 5 2.5 1.92 1.92 3.84 1.6 1.34 1.64 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .1 .1 .6 .6 .1 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 .1578 0 0
alfa= .9 1.1 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.45	10.24	55.4	3.375	1.803	0.420	1.517
Variació a amb b constant						
a= 3.45/ 4 / .05						
3.45	10.24	55.4	3.375	1.803	0.420	1.517
3.50	10.24	56.2	3.374	1.790	0.420	1.526
3.55	10.24	57.0	3.374	1.778	0.420	1.534
3.60	10.24	57.8	3.373	1.766	0.420	1.543
3.65	10.24	58.6	3.373	1.754	0.420	1.551
3.70	10.24	59.4	3.372	1.742	0.420	1.559
3.75	10.24	60.2	3.372	1.731	0.420	1.567
3.80	10.24	61.0	3.371	1.720	0.420	1.575
3.85	10.24	61.8	3.371	1.709	0.420	1.582
3.90	10.24	62.6	3.370	1.698	0.420	1.590
3.95	10.24	63.4	3.370	1.688	0.420	1.597
4.00	10.24	64.2	3.369	1.678	0.420	1.605

Variació a/b per RT constant
ratio inicial= 1.517 desviació= .01
a= 3.45/ 4 / .05 b= 10.24 / 11.24 / .1

	10.24	55.4	3.375	1.803	0.420	1.517
	10.24	56.2	3.374	1.790	0.420	1.526
	10.34	56.9	3.333	1.779	0.420	1.515
	10.34	57.7	3.332	1.766	0.420	1.524
	10.44	58.4	3.292	1.755	0.420	1.513
	10.44	59.2	3.291	1.742	0.420	1.521
	10.54	59.9	3.252	1.731	0.420	1.511
	10.54	60.8	3.251	1.720	0.420	1.519
	10.64	61.5	3.213	1.709	0.420	1.508
	10.64	62.3	3.212	1.697	0.420	1.516
	10.64	63.2	3.212	1.686	0.420	1.524
	10.74	63.9	3.174	1.676	0.420	1.514
	10.74	64.8	3.173	1.665	0.420	1.521
	10.84	65.5	3.137	1.655	0.420	1.511
	10.84	66.4	3.136	1.644	0.420	1.518
	10.94	67.2	3.100	1.634	0.420	1.508
	10.84	67.3	3.136	1.634	0.420	1.526
	10.94	68.1	3.100	1.624	0.420	1.515
	10.94	68.9	3.099	1.614	0.420	1.523
	11.04	69.7	3.064	1.605	0.420	1.512
	11.04	70.6	3.064	1.595	0.420	1.519
	11.14	71.4	3.029	1.586	0.420	1.509

Variació a/b per S constant
a= 3.45 / 4 / .05

3.45	10.24	55.3	3.375	1.804	0.420	1.517
3.50	10.12	55.4	3.424	1.804	0.420	1.538
3.55	10.01	55.3	3.472	1.806	0.420	1.559
3.60	9.90	55.3	3.521	1.807	0.420	1.580
3.65	9.80	55.3	3.569	1.809	0.420	1.601
3.70	9.70	55.4	3.617	1.810	0.420	1.621
3.75	9.60	55.4	3.666	1.812	0.420	1.641
3.80	9.50	55.4	3.714	1.815	0.420	1.661
3.85	9.40	55.4	3.763	1.817	0.420	1.681
3.90	9.31	55.4	3.811	1.819	0.420	1.701
3.95	9.22	55.4	3.860	1.822	0.420	1.721
4.00	9.13	55.4	3.908	1.825	0.420	1.740

edifici: montbau2
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= 1.46
c= .53 d= 0 f= 0
kn= 4.4 2.5 4.4 .48 5 .48 1.92 1.92 3.84 1.6 1.34 .78 0 0 0 0
0 0 0 0
ckn= .1 .1 .1 .2 .1 .2 .6 .6 .1 .6 .6 .3 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 .137 0 0
alfa= .8 1.2 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	3.45	10.24	55.4	4.243	1.597	0.420	2.102

edifici: montbau2
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= 1.46
c= 1 d= 0 f= 0
kn= 4.4 .48 4.4 2.5 5 .48 1.92 1.92 3.84 1.6 1.34 .78 0 0 0 0
0 0 0 0
ckn= .1 .2 .1 .1 .1 .2 .6 .6 .1 .6 .6 .3 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 1 0 0
alfa= 1.2 .8 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	3.45	10.24	55.4	2.580	1.626	0.420	1.260

edifici: montbau2
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= 1.46
c= .44 d= 0 f= 0
kn= 4.4 .48 4.4 .48 5 .48 1.92 1.92 3.84 1.6 1.34 .78 0 0 0 0
0 0 0 0
ckn= .1 .2 .1 .2 .1 .2 .6 .6 .1 .6 .6 .3 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 .3977 0 0
alfa= 1 1 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	3.45	10.24	55.4	2.418	1.551	0.420	1.226

edifici: montbau2
variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= 1.46
c= .55 d= 0 f= 0
kn= 4.4 2.5 4.4 .48 5 .48 1.92 1.92 3.84 1.6 1.34 .78 0 0 0 0
0 0 0 0
ckn= .1 .1 .1 .2 .1 .2 .6 .6 .1 .6 .6 .3 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 .1578 0 0
alfa= .9 1.1 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	3.45	10.24	55.4	3.437	1.633	0.420	1.673

```
44 REM *************** ESQUELET DE L'EDIFICI:Montbau.2 estiu ******************
45 REM
50 DO=CR1*(2.4*A*C*.7+.8*A*.7)          'façana 1 - Capt.transp. CRi*s*t
52 DA=CR2*.8*A*.7                       'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*0                             'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                             'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*.96*.7                        'patis    - Capt.transp. CRi*s*t
60 DP=CR1*2.8*A*CK2*.6                  'façana 1 - Capt.opacs  CRi*s*abs*ckn
62 DD=CR2*2.2*A*CK4*.6                  'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*0                             'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*0                             'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*5.59*CK6*.6                   'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=2.4*0                             'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=(2*A*B-.12-4.4*A)  'superfície en planta   funció a i b
74 DU=A1*(3.2*A*K1+2.8*A*K2)            'façana 1 - Transmissió  ai*s*kn
76 DK=A2*(.8*A*K3+.8*A*K4)              'façana 2 - Transmissió  ai*s*kn
78 DL=A3*0                              'façana 3 - Transmissió  ai*s*kn
80 DM=A4*0                              'façana 4 - Transmissió  ai*s*kn
82 DH=.8*(.48*K5+11.19*K6)              'patis    - Transmissió  ai*s*kn
84 DV=0                                 'terra    - Transmissió  s*kn
86 DW= 10.277*B*K7+1.752*A*K8+.461*A*K9+1.68*K10+(2*A*B-.6-4.4*A)*K11
        'locals   - Transmissió  s*kn
88 DX= 2.4*A*K12                        'coberta  - Transmissió  s*kn
89 RETURN
90 B=(55.47+4.4*A)/(2*A)                'valor b per S constant   (funció de a)
```

edifici: montbau2
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 40.896
c= .51 d= 0 f= 0
kn= 4.4 2.5 4.4 2.5 5 2.5 1.92 1.92 3.84 1.6 1.34 1.64 0 0 0 0
0 0 0 0
ckn= .1 .1 .1 .1 .1 .1 .6 .6 .1 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 .756 0 0
alfa= .9 .8 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.45	10.24	55.4	3.766	1.613	11.778	0.281
Variació a amb b constant						
a= 3.45/ 4 / .05						
3.45	10.24	55.4	3.766	1.613	11.778	0.281
3.50	10.24	56.2	3.766	1.602	11.778	0.281
3.55	10.24	57.0	3.766	1.592	11.778	0.281
3.60	10.24	57.8	3.765	1.581	11.778	0.281
3.65	10.24	58.6	3.765	1.571	11.778	0.282
3.70	10.24	59.4	3.764	1.562	11.778	0.282
3.75	10.24	60.2	3.764	1.552	11.778	0.282
3.80	10.24	61.0	3.763	1.543	11.778	0.282
3.85	10.24	61.8	3.763	1.534	11.778	0.282
3.90	10.24	62.6	3.763	1.525	11.778	0.282
3.95	10.24	63.4	3.762	1.517	11.778	0.282
4.00	10.24	64.2	3.762	1.508	11.778	0.283
Variació a/b per RT constant						
ratio inicial= .281 desviació= .01						
a= 3.45/ 4 / .05	b= 10.24 / 11.24 / .1					
	10.24	55.4	3.766	1.613	11.778	0.281
	10.34	56.0	3.720	1.602	11.778	0.278
	10.44	56.7	3.675	1.591	11.778	0.274
	10.54	57.4	3.631	1.580	11.778	0.271
	10.24	56.2	3.766	1.602	11.778	0.281
	10.34	56.9	3.720	1.591	11.778	0.278
	10.44	57.6	3.674	1.580	11.778	0.275
	10.54	58.3	3.630	1.570	11.778	0.271
	10.24	57.0	3.766	1.592	11.778	0.281
	10.34	57.7	3.719	1.581	11.778	0.278
	10.44	58.4	3.674	1.570	11.778	0.275
	10.54	59.1	3.630	1.559	11.778	0.272
	10.24	57.8	3.765	1.581	11.778	0.281
	10.34	58.5	3.719	1.570	11.778	0.278
	10.44	59.2	3.673	1.560	11.778	0.275
	10.54	59.9	3.629	1.549	11.778	0.272
	10.24	58.6	3.765	1.571	11.778	0.282
	10.34	59.3	3.718	1.560	11.778	0.278
	10.44	60.0	3.673	1.550	11.778	0.275
	10.54	60.8	3.629	1.539	11.778	0.272
	10.24	59.4	3.764	1.562	11.778	0.282
	10.34	60.1	3.718	1.551	11.778	0.278
	10.44	60.9	3.673	1.540	11.778	0.275
	10.54	61.6	3.628	1.529	11.778	0.272
	10.24	60.2	3.764	1.552	11.778	0.282
	10.34	60.9	3.717	1.541	11.778	0.279
	10.44	61.7	3.672	1.531	11.778	0.275
	10.54	62.4	3.628	1.520	11.778	0.272
	10.24	61.0	3.763	1.543	11.778	0.282
	10.34	61.7	3.717	1.532	11.778	0.279
	10.44	62.5	3.672	1.521	11.778	0.276
	10.54	63.3	3.628	1.511	11.778	0.272
	10.24	61.8	3.763	1.534	11.778	0.282
	10.34	62.6	3.717	1.523	11.778	0.279
	10.44	63.3	3.671	1.512	11.778	0.276
	10.54	64.1	3.627	1.502	11.778	0.273
	10.24	62.6	3.763	1.525	11.778	0.282
	10.34	63.4	3.716	1.514	11.778	0.279
	10.44	64.2	3.671	1.504	11.778	0.276
	10.54	64.9	3.627	1.493	11.778	0.273
	10.24	63.4	3.762	1.517	11.778	0.282
	10.34	64.2	3.716	1.506	11.778	0.279
	10.44	65.0	3.671	1.495	11.778	0.276
	10.54	65.8	3.627	1.485	11.778	0.273
	10.24	64.2	3.762	1.508	11.778	0.283
	10.34	65.0	3.715	1.498	11.778	0.279
	10.44	65.8	3.670	1.487	11.778	0.276
	10.54	66.6	3.626	1.477	11.778	0.273
Variació a/b per S constant						
a= 3.45 / 4 / .05						
3.45	10.24	55.3	3.767	1.613	11.778	0.281
3.50	10.12	55.4	3.821	1.616	11.778	0.285
3.55	10.01	55.3	3.875	1.618	11.778	0.289
3.60	9.90	55.3	3.930	1.621	11.778	0.293
3.65	9.80	55.3	3.984	1.624	11.778	0.297
3.70	9.70	55.4	4.038	1.627	11.778	0.301
3.75	9.60	55.4	4.092	1.630	11.778	0.305
3.80	9.50	55.4	4.146	1.633	11.778	0.309
3.85	9.40	55.4	4.201	1.637	11.778	0.313
3.90	9.31	55.4	4.255	1.640	11.778	0.317
3.95	9.22	55.4	4.309	1.644	11.778	0.321
4.00	9.13	55.4	4.363	1.648	11.778	0.324

edifici: montbau2
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 40.896
c= .187 d= 0 f= 0
kn= 4.4 2.5 4.4 2.5 5 2.5 1.92 1.92 3.84 1.6 1.34 1.64 0 0 0 0
0 0 0 0
ckn= .1 .1 .1 .1 .1 .1 .6 .6 .1 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 1 0 0
alfa= .8 .9 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.45	10.24	55.4	2.652	1.581	11.778	0.198
Variació a amb b constant						
a= 3.45/ 4 / .05						
3.45	10.24	55.4	2.652	1.581	11.778	0.198
3.50	10.24	56.2	2.651	1.570	11.778	0.198
3.55	10.24	57.0	2.651	1.559	11.778	0.198
3.60	10.24	57.8	2.651	1.549	11.778	0.198
3.65	10.24	58.6	2.650	1.539	11.778	0.199
3.70	10.24	59.4	2.650	1.529	11.778	0.199
3.75	10.24	60.2	2.649	1.520	11.778	0.199
3.80	10.24	61.0	2.649	1.511	11.778	0.199
3.85	10.24	61.8	2.649	1.502	11.778	0.199
3.90	10.24	62.6	2.648	1.493	11.778	0.199
3.95	10.24	63.4	2.648	1.484	11.778	0.199
4.00	10.24	64.2	2.648	1.476	11.778	0.199

Variació a/b per RT constant
ratio inicial= .198 desviació= .01
a= 3.45/ 4 / .05 b= 10.24 / 11.24 / .1

10.24	55.4	2.652	1.581	11.778	0.198
10.34	56.0	2.619	1.570	11.778	0.196
10.44	56.7	2.587	1.560	11.778	0.193
10.54	57.4	2.556	1.549	11.778	0.191
10.64	58.1	2.526	1.539	11.778	0.189
10.24	56.2	2.651	1.570	11.778	0.198
10.34	56.9	2.619	1.559	11.778	0.196
10.44	57.6	2.587	1.549	11.778	0.194
10.54	58.3	2.556	1.538	11.778	0.191
10.64	59.0	2.526	1.528	11.778	0.189
10.24	57.0	2.651	1.559	11.778	0.198
10.34	57.7	2.618	1.549	11.778	0.196
10.44	58.4	2.587	1.538	11.778	0.194
10.54	59.1	2.555	1.528	11.778	0.192
10.64	59.8	2.525	1.518	11.778	0.189
10.24	57.8	2.651	1.549	11.778	0.198
10.34	58.5	2.618	1.538	11.778	0.196
10.44	59.2	2.586	1.528	11.778	0.194
10.54	59.9	2.555	1.518	11.778	0.192
10.64	60.6	2.525	1.508	11.778	0.190
10.24	58.6	2.650	1.539	11.778	0.199
10.34	59.3	2.618	1.528	11.778	0.196
10.44	60.0	2.586	1.518	11.778	0.194
10.54	60.8	2.555	1.508	11.778	0.192
10.64	61.5	2.524	1.498	11.778	0.190
10.24	59.4	2.650	1.529	11.778	0.199
10.34	60.1	2.617	1.519	11.778	0.196
10.44	60.9	2.585	1.508	11.778	0.194
10.54	61.6	2.554	1.498	11.778	0.192
10.64	62.3	2.524	1.488	11.778	0.190
10.24	60.2	2.649	1.520	11.778	0.199
10.34	60.9	2.617	1.509	11.778	0.196
10.44	61.7	2.585	1.499	11.778	0.194
10.54	62.4	2.554	1.489	11.778	0.192
10.64	63.2	2.524	1.479	11.778	0.190
10.24	61.0	2.649	1.511	11.778	0.199
10.34	61.7	2.616	1.500	11.778	0.197
10.44	62.5	2.585	1.490	11.778	0.194
10.54	63.3	2.554	1.480	11.778	0.192
10.64	64.0	2.523	1.470	11.778	0.190
10.24	61.8	2.649	1.502	11.778	0.199
10.34	62.6	2.616	1.491	11.778	0.197
10.44	63.3	2.584	1.481	11.778	0.194
10.54	64.1	2.553	1.471	11.778	0.192
10.64	64.9	2.523	1.461	11.778	0.190
10.24	62.6	2.648	1.493	11.778	0.199
10.34	63.4	2.616	1.482	11.778	0.197
10.44	64.2	2.584	1.472	11.778	0.195
10.54	64.9	2.553	1.462	11.778	0.192
10.64	65.7	2.523	1.453	11.778	0.190
10.24	63.4	2.648	1.484	11.778	0.199
10.34	64.2	2.615	1.474	11.778	0.197
10.44	65.0	2.584	1.464	11.778	0.195
10.54	65.8	2.553	1.454	11.778	0.192
10.64	66.6	2.522	1.444	11.778	0.190
10.24	64.2	2.648	1.475	11.778	0.199
10.34	65.0	2.615	1.465	11.778	0.197
10.44	65.8	2.583	1.456	11.778	0.195
10.54	66.6	2.552	1.446	11.778	0.193
10.64	67.4	2.522	1.436	11.778	0.190

Variació a/b per S constant
a= 3.45 / 4 / .05

3.45	10.24	55.3	2.652	1.581	11.778	0.198
3.50	10.12	55.4	2.690	1.583	11.778	0.201
3.55	10.01	55.3	2.728	1.585	11.778	0.204
3.60	9.90	55.3	2.766	1.587	11.778	0.206
3.65	9.80	55.3	2.804	1.590	11.778	0.209
3.70	9.70	55.4	2.843	1.592	11.778	0.212
3.75	9.60	55.4	2.881	1.595	11.778	0.215
3.80	9.50	55.4	2.919	1.598	11.778	0.218
3.85	9.40	55.4	2.957	1.601	11.778	0.221
3.90	9.31	55.4	2.995	1.604	11.778	0.223
3.95	9.22	55.4	3.033	1.607	11.778	0.226
4.00	9.13	55.4	3.071	1.611	11.778	0.229

edifici: montbau2
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 23.611
c= .68 d= 0 f= 0
kn= 4.4 2.5 4.4 2.5 5 2.5 1.92 1.92 3.84 1.6 1.34 1.64 0 0 0 0 0 0 0 0
ckn= .1 .1 .1 .1 .1 .1 .6 .6 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 1.345 0 0
alfa= 1 1 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
3.45	10.24	55.4	6.142	1.680	6.800	0.724
Variació a amb b constant						
a= 3.45/ 4 / .05						
3.45	10.24	55.4	6.142	1.680	6.800	0.724
3.50	10.24	56.2	6.141	1.669	6.800	0.725
3.55	10.24	57.0	6.140	1.659	6.800	0.725
3.60	10.24	57.8	6.140	1.648	6.800	0.726
3.65	10.24	58.6	6.139	1.638	6.800	0.727
3.70	10.24	59.4	6.139	1.628	6.800	0.728
3.75	10.24	60.2	6.138	1.619	6.800	0.729
3.80	10.24	61.0	6.138	1.610	6.800	0.729
3.85	10.24	61.8	6.138	1.601	6.800	0.730
3.90	10.24	62.6	6.137	1.592	6.800	0.731
3.95	10.24	63.4	6.137	1.583	6.800	0.732
4.00	10.24	64.2	6.136	1.575	6.800	0.732
Variació a/b per RT constant						
ratio inicial= .724 desviació= .01						
a= 3.45/ 4 / .05	b= 10.24 / 11.24 / .1					
	10.24	55.4	6.142	1.680	6.800	0.724
	10.34	56.0	6.066	1.668	6.800	0.716
	10.24	56.2	6.141	1.669	6.800	0.725
	10.34	56.9	6.065	1.657	6.800	0.717
	10.24	57.0	6.140	1.659	6.800	0.725
	10.34	57.7	6.065	1.647	6.800	0.718
	10.24	57.8	6.140	1.648	6.800	0.726
	10.34	58.5	6.064	1.636	6.800	0.718
	10.24	58.6	6.139	1.638	6.800	0.727
	10.34	59.3	6.064	1.626	6.800	0.719
	10.24	59.4	6.139	1.628	6.800	0.728
	10.34	60.1	6.063	1.617	6.800	0.720
	10.24	60.2	6.138	1.619	6.800	0.729
	10.34	60.9	6.063	1.607	6.800	0.721
	10.24	61.0	6.138	1.610	6.800	0.729
	10.34	61.7	6.062	1.598	6.800	0.721
	10.24	61.8	6.138	1.601	6.800	0.730

10.34	62.6	6.062	1.589	6.800	0.722
10.24	62.6	6.137	1.592	6.800	0.731
10.34	63.4	6.062	1.580	6.800	0.723
10.44	64.2	5.988	1.569	6.800	0.715
10.24	63.4	6.137	1.583	6.800	0.732
10.34	64.2	6.061	1.572	6.800	0.723
10.44	65.0	5.987	1.560	6.800	0.716
10.24	64.2	6.136	1.575	6.800	0.732
10.34	65.0	6.061	1.563	6.800	0.724
10.44	65.8	5.987	1.552	6.800	0.716

Variació a/b per S constant
a= 3.45 / 4 / .05

3.45	10.24	55.3	6.142	1.680	6.800	0.724
3.50	10.12	55.4	6.231	1.683	6.800	0.734
3.55	10.01	55.3	6.320	1.687	6.800	0.744
3.60	9.90	55.3	6.408	1.691	6.800	0.754
3.65	9.80	55.3	6.497	1.694	6.800	0.764
3.70	9.70	55.4	6.585	1.698	6.800	0.774
3.75	9.60	55.4	6.674	1.702	6.800	0.784
3.80	9.50	55.4	6.763	1.707	6.800	0.794
3.85	9.40	55.4	6.851	1.711	6.800	0.804
3.90	9.31	55.4	6.940	1.716	6.800	0.814
3.95	9.22	55.4	7.029	1.721	6.800	0.824
4.00	9.13	55.4	7.117	1.725	6.800	0.834

edifici: montbau2
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 33.391
c= .65 d= 0 f= 0
n= 4.4 2.5 4.4 2.5 5 2.5 1.92 1.92 3.84 1.6 1.34 1.64 0 0 0 0
0 0 0 0
ckn= .1 .1 .1 .1 .1 .1 .6 .6 .1 .6 .6 .6 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 1.07458 0 0
alfa= .95 .9 0 0

a	b	S	I	Gt	Gv	R.T.

Edifici original

3.45	10.24	55.4	5.372	1.647	9.617	0.476

Variació a amb b constant
a= 3.45/ 4 / .05

3.45	10.24	55.4	5.372	1.647	9.617	0.476
3.50	10.24	56.2	5.372	1.636	9.617	0.477
3.55	10.24	57.0	5.371	1.625	9.617	0.477
3.60	10.24	57.8	5.371	1.615	9.617	0.478
3.65	10.24	58.6	5.370	1.605	9.617	0.478
3.70	10.24	59.4	5.370	1.595	9.617	0.478
3.75	10.24	60.2	5.369	1.586	9.617	0.479
3.80	10.24	61.0	5.369	1.576	9.617	0.479
3.85	10.24	61.8	5.369	1.567	9.617	0.480
3.90	10.24	62.6	5.368	1.559	9.617	0.480
3.95	10.24	63.4	5.368	1.550	9.617	0.480
4.00	10.24	64.2	5.367	1.542	9.617	0.481

Variació a/b per RT constant
ratio inicial= .476 desviació= .01
a= 3.45/ 4 / .05 b= 10.24 / 11.24 / .1

10.24	55.4	5.372	1.647	9.617	0.476
10.34	56.0	5.306	1.635	9.617	0.471
10.24	56.2	5.372	1.636	9.617	0.477
10.34	56.9	5.306	1.624	9.617	0.472
10.24	57.0	5.371	1.625	9.617	0.477
10.34	57.7	5.305	1.614	9.617	0.472
10.44	58.4	5.241	1.602	9.617	0.467
10.24	57.8	5.371	1.615	9.617	0.478
10.34	58.5	5.305	1.603	9.617	0.472
10.44	59.2	5.240	1.592	9.617	0.467
10.24	58.6	5.370	1.605	9.617	0.478
10.34	59.3	5.304	1.593	9.617	0.473
10.44	60.0	5.240	1.582	9.617	0.467
10.24	59.4	5.370	1.595	9.617	0.478
10.34	60.1	5.304	1.584	9.617	0.473
10.44	60.9	5.239	1.573	9.617	0.468
10.24	60.2	5.369	1.586	9.617	0.479
10.34	60.9	5.303	1.574	9.617	0.473
10.44	61.7	5.239	1.563	9.617	0.468
10.24	61.0	5.369	1.576	9.617	0.479
10.34	61.7	5.303	1.565	9.617	0.474
10.44	62.5	5.238	1.554	9.617	0.468
10.24	61.8	5.369	1.567	9.617	0.480
10.34	62.6	5.302	1.556	9.617	0.474
10.44	63.3	5.238	1.545	9.617	0.469
10.24	62.6	5.368	1.559	9.617	0.480
10.34	63.4	5.302	1.547	9.617	0.474
10.44	64.2	5.238	1.536	9.617	0.469
10.24	63.4	5.368	1.550	9.617	0.480
10.34	64.2	5.302	1.539	9.617	0.475
10.44	65.0	5.237	1.528	9.617	0.469
10.24	64.2	5.367	1.542	9.617	0.481
10.34	65.0	5.301	1.531	9.617	0.475
10.44	65.8	5.237	1.520	9.617	0.470

Variació a/b per S constant
a= 3.45 / 4 / .05

3.45	10.24	55.3	5.373	1.647	9.617	0.477
3.50	10.12	55.4	5.450	1.650	9.617	0.483
3.55	10.01	55.3	5.528	1.653	9.617	0.490
3.60	9.90	55.3	5.605	1.656	9.617	0.497
3.65	9.80	55.3	5.683	1.659	9.617	0.504
3.70	9.70	55.4	5.760	1.663	9.617	0.510
3.75	9.60	55.4	5.838	1.666	9.617	0.517
3.80	9.50	55.4	5.915	1.670	9.617	0.524
3.85	9.40	55.4	5.993	1.674	9.617	0.530
3.90	9.31	55.4	6.070	1.678	9.617	0.537
3.95	9.22	55.4	6.148	1.682	9.617	0.544
4.00	9.13	55.4	6.225	1.687	9.617	0.550

edifici: bio montbau2
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 40.896
c= .51 d= 0 f= 0
n= 4.4 2.5 4.4 .48 5 .48 1.92 1.92 3.84 1.6 1.34 .78 0 0 0 0
0 0 0 0
ckn= .1 .1 .1 .2 .1 .2 .6 .6 .1 .6 .6 .3 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 .756 0 0
alfa= .9 .8 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	3.45	10.24	55.4	3.952	1.430	11.778	0.299

edifici: bio montbau2
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 40.896
c= .187 d= 0 f= 0
kn= 4.4 .48 4.4 2.5 5 .48 1.92 1.92 3.84 1.6 1.34 .78 0 0 0 0
0 0 0 0
ckn= .1 .2 .1 .1 .1 .2 .6 .6 .1 .6 .6 .3 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 1 0 0
alfa= .8 .9 0 0

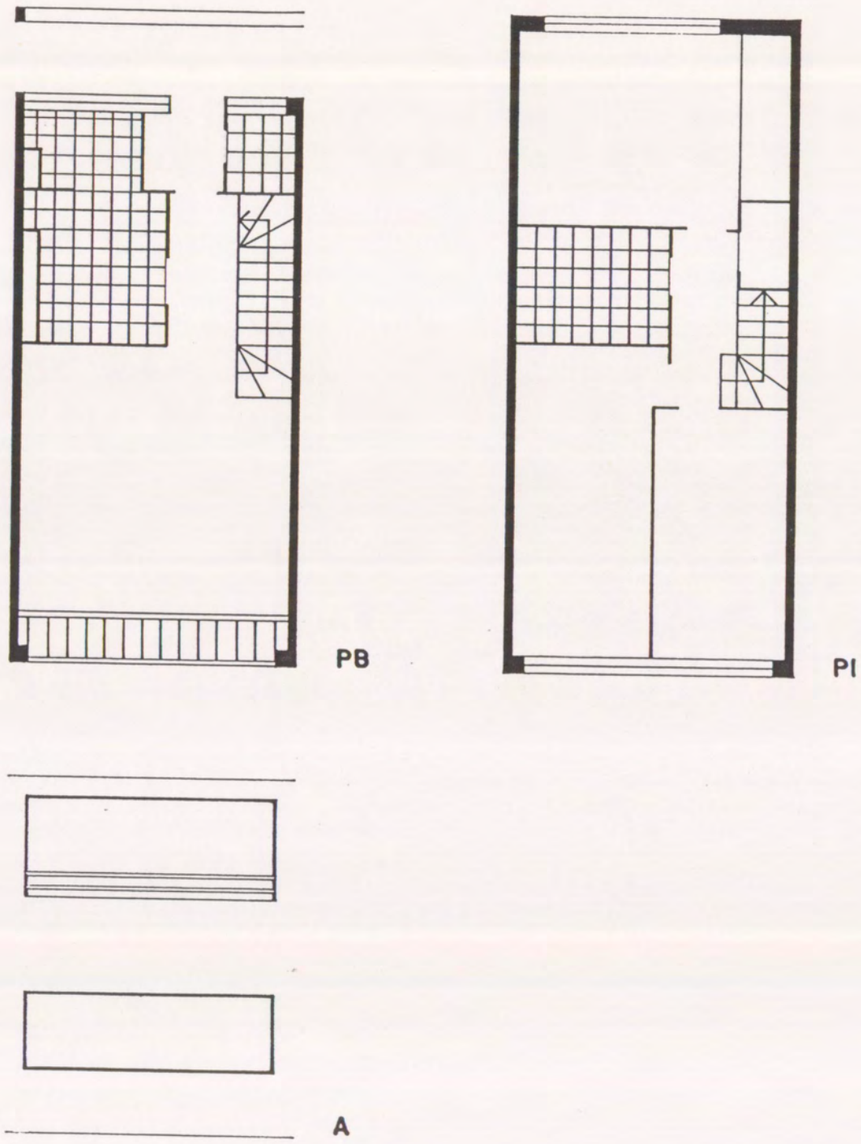
	a	b	S	I	Gt	Gv	R.T.
Edifici original	3.45	10.24	55.4	2.896	1.331	11.778	0.220

Variació a amb b constant
edifici: bio montbau2
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 23.611
c= .68 d= 0 f= 0
kn= 4.4 .48 4.4 .48 5 .48 1.92 1.92 3.84 1.6 1.34 .78 0 0 0 0
0 0 0 0
ckn= .1 .2 .1 .2 .1 .2 .6 .6 .1 .6 .6 .3 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 1.345 0 0
alfa= 1 1 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	3.45	10.24	55.4	6.866	1.373	6.800	0.840

edifici: bio montbau2
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 33.391
c= .65 d= 0 f= 0
kn= 4.4 2.5 4.4 .48 5 .48 1.92 1.92 3.84 1.6 1.34 .78 0 0 0 0
0 0 0 0
ckn= .1 .1 .1 .2 .1 .2 .6 .6 .1 .6 .6 .3 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 1.07458 0 0
alfa= .95 .9 0 0

	a	b	S	I	Gt	Gv	R.T.
Edifici original	3.45	10.24	55.4	5.633	1.460	9.617	0.508



2.2.B.6

MANZANA MARTI L'HUMA
SABADELL (B)

M.B.M.

DATOS GEOMETRICOS

a = 4,30 m (4,30/4,60 m)
b = 10,00 m (10,00/10,60 m)
S = 77,83 m² V = 233,49 m3
Si/S = 0,22 Sit/Sio = 1,18

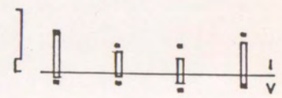
RATIOS TERMICOS (°C)

	sin aislar	aislado
invierno		
S	3,41	3,40
N	1,98	1,95
E	1,32	1,46
W	1,32	1,46
NE	2,66	2,62
SW	2,66	2,62
verano		
S	0,44	0,40
N	0,32	0,28
E	1,09	0,86
W	1,09	0,86
SE	0,69	0,62
SW	0,69	0,62

MASA TERMICA (kcal/°C m3)

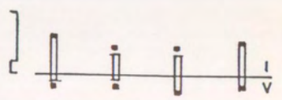
33,20 32,58

RT CON

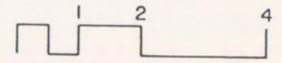


s n e-w se-sw

RT SIN



s n e-w se-sw



BARCELONA 85-88
E.T.S.A.B. U.P.C.

TESIS DOCTORAL · BIOCLIMATISMO Y TIPO ARQUITECTONICO EN CATALUÑA EN EL PERIODO 1930 1985 · VICTOR SEGUI SANTANA

MANZANA MARTI L'HUMA SABADELL . M.B.M.

2286

CAPTORES TRANSPARENTES	1	V. SUR 1	S	2.232.A.C
			t	0.7
			CR	CR1
	2	V. SUR 2	S	1.116 A
			t	0.7
			CR	CR1
	3	V. NORTE	S	0.781 A
			t	0.7
			CR	CR2
	4		S	
			t	
			CR	
	5		S	
			t	
			CR	
	6		S	
			t	
			CR	
CAPTORES OPACOS	1	P.SUR	S	1.5837A
			CK	CK3
			α	0.6
			CR	K1
	2	P. NORTE	S	1.9186A
			CK	CK6
			α	0.6
			CR	K2
	3		S	
			CK	
			α	
			CR	
	4		S	
			CK	
			α	
			CR	
	5		S	
			CK	
			α	
			CR	
	6		S	
			CK	
			α	
			CR	
	7		S	
			CK	
			α	
			CR	
	8		S	
			CK	
			α	
			CR	
	9		S	
			CK	
			α	
			CR	
CUBIERTA	1		S	
			CK	
			α	

TRANSMISION FACHADAS	1	V. SUR 1	S	2.232 A
			K	K1
			K	K1
	2	V. SUR 2	S	1.116 A
			K	K2
			K	K1
	3	P. SUR	S	1.5837A
			K	K3
			K	K1
	4	V. NORTE 1	S	0.781 A
			K	K4
			K	K2
	5	V. NORTE 2	S	2.121 A
			K	K5
			K	K2
	6	P. NORTE	S	1.9186 A
			K	K6
			K	K2
	7	PUERTA. N	S	1.68
			K	K7
			K	K2.
	8		S	
			K	
			K	
	9		S	
			K	
			K	
	10		S	
			K	
			K	
	11		S	
			K	
			K	
	12		S	
			K	
			K	
	13		S	
			K	
			K	
	14		S	
			K	
			K	
	15		S	
			K	
			K	
	16		S	
			K	
			K	

INFILTRACIONES			S	28.56
			R	1.4678
SEPARACION TERRENO	1		S	
			K	
	2		S	
			K	
SEPARACION OTROS LOCALES	1	MEDIAN	S	9.828B
			K	K8
	2	FORJADOS	S	1.81 A B
			K	K9
	3		S	
			K	
	4		S	
			K	
	5		S	
			K	
TRANSMISION PIEL HORIZONT. CUBIERTA	1		S	
			K	
	2		S	
			K	
SUPERFICIE EN PLANTA	(1.81. A. B)			

MANZANA MARTÍ L'HUMA SABADELL. M B M. 22 BG

VARIABLES GEOMETRICAS	A	B	Amin.	Amax.	I	Bmin.	Bmax.	I	DESVIACION	B para S Cte.	VOLUMEN	SUPERFICIE
	4.3	10	4.3	4.6	0.1	10	10.6	0.2	0.01	43/A=B	233.49	77.85

R=2800 — INVIERNO

K_1	K_2	K_3	K_4	K_5	K_6	K_7	K_8	K_9	K_{10}	K_{11}	K_{12}	K_{13}	K_{14}	K_{15}	K_{16}	K_{17}	K_{18}
5	4.4	1.25	4.4	5	1.25	1.7	1.7	1.34									

VERANO — R=2050

O	RH	COEFICIENTES								COEFICIENTES DE TRANSMISION K																		COEFICIENTES							RH	O
S	1.4678	CR_1	1	CR_2	0.137	CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3	0.756	CR_2	1	CR_1		S
		K_1	0.8	K_2	1.2	K_3		K_4																				K_4		K_3	0.8	K_2	0.9	K_1		
		C	0.822	D		F		G		5	4.4	1.25	4.4	5	0.4	1.7	1.7	1.34										G		F		D	0.708	C	37.608	
N	1.4678	CR_1	0.137	CR_2	1	CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3	1	CR_2	0.756	CR_1		N
		K_1	1.2	K_2	0.8	K_3		K_4																				X_4		K_3	0.9	K_2	0.8	K_1		
		C	1	D		F		G		5	4.4	0.4	4.4	5	1.25	1.7	1.7	1.34										G		F		D	0.187	C	37.608	
E	1.4678	CR_1	0.3977	CR_2	0.3977	CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3	1.345	CR_2	1.345	CR_1		E
		K_1	1	K_2	1	K_3		K_4																				K_4		K_3	1	K_2	1	K_1		
		C	0.76	D		F		G		5	4.4	0.4	4.4	5	0.4	1.7	1.7	1.34										G		F		D	0.815	C	21.713	
W		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2		CR_1		W
		K_1		K_2		K_3		K_4																				K_4		K_3		K_2		K_1		
		C		D		F		G																				G		F		D		C		
SE	1.4678	CR_1	0.768	CR_2	0.1578	CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3	1.0458	CR_2	1.2469	CR_1		SE
		K_1	0.9	K_2	1.1	K_3		K_4																				K_4		K_3	0.9	K_2	0.95	K_1		
		C	0.796	D		F		G		5	4.4	1.25	4.4	5	0.4	1.7	1.7	1.34										G		F		D	0.741	C	30.707	
SW		CR_1		CR_2		CR_3		CR_4		K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}		CR_4		CR_3		CR_2		CR_1		SW
		K_1		K_2		K_3		K_4																				K_4		K_3		K_2		K_1		
		C		D		F		G																				G		F		D		C		

```
44 REM *************** ESQUELET DE L'EDIFICI:mbmsab                ******************
45 REM
50 DO=CR1*(2.232*A*C*.7+1.116*A*.7)                              'façana 1 - Capt.trans
. CRi*s*t
52 DA=CR2*(.781*A*.7)                          'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*0                                   'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                                   'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*0                                   'patis    - Capt.transp. CRi*s*t
60 DF=CR1*1.5837*A*CK3*.6                                'façana 1 - Capt.opacs  CRi*s*ab
*ckn
62 DD=CR2*1.9186*A*CK6*.6                                'façana 2 - Capt.opacs  CRi*s*ab
*ckn
64 DF=CR3*0                                   'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*0                                   'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*0                                   'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=.52*0                                   'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=1.81*A*B                                'superfície en planta   funció a i b
74 DU=A1*(2.232*A*K1+1.116*A*K2+1.5837*A*K3)                                'façana 1 -
ransmissió  ai*s*kn
76 DK=A2*(.781*A*K4+2.121*A*K5+1.9186*A*K6+1.68*K7)                                'façar
a 2 - Transmissió  ai*s*kn
78 DL=A3*0                                    'façana 3 - Transmissió  ai*s*kn
80 DM=A4*0                                    'façana 4 - Transmissió  ai*s*kn
82 DH=.8*0                                    'patis    - Transmissió  ai*s*kn
84 DV=0                                       'terra    - Transmissió  s*kn
86 DW=(9.828*B*K8)+(1.81*A*B*K9)                                  'locals   - Transmissi
ó  s*kn
88 DX=0                                       'coberta  - Transmissió  s*kn
89 RETURN
90 B=43/A                                     'valor b per S constant   (funció de a)
```

Rv= 2800 D= 0 rh= 1.4678
c= .822 d= 0 f= 0
kn= 5 4.4 1.25 4.4 5 1.25 1.7 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 .137 0 0
alfa= .8 1.2 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
4.30	10.00	77.8	6.027	1.341	0.423	3.416
Variació a amb b constant						
a= 4.30/ 4.6 / .1						
4.30	10.00	77.8	6.027	1.341	0.423	3.416
4.40	10.00	79.6	6.027	1.331	0.423	3.436
4.50	10.00	81.5	6.027	1.322	0.423	3.455
4.60	10.00	83.3	6.027	1.312	0.423	3.473
Variació a/b per RT constant						
ratio inicial= 3.416 desviació= .01						
a= 4.30/ 4.6 / .1	b= 10 / 10.6 / .2					
	10.00	77.8	6.027	1.341	0.423	3.416
	10.20	83.1	5.909	1.309	0.423	3.412
Variació a/b per S constant						
a= 4.3 / 4.6 / .1						
4.30	10.00	77.8	6.027	1.341	0.423	3.416
4.40	9.77	77.8	6.167	1.346	0.423	3.486
4.50	9.56	77.8	6.307	1.351	0.423	3.555
4.60	9.35	77.8	6.448	1.357	0.423	3.622

edifici: mbmsab
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= 1.4678
c= 1 d= 0 f= 0
kn= 5 4.4 1.25 4.4 5 1.25 1.7 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 1 0 0
alfa= 1.2 .8 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
4.30	10.00	77.8	3.516	1.348	0.423	1.985
Variació a amb b constant						
a= 4.30/ 4.6 / .1						
4.30	10.00	77.8	3.516	1.348	0.423	1.985
4.40	10.00	79.6	3.516	1.338	0.423	1.996
4.50	10.00	81.5	3.516	1.329	0.423	2.007
4.60	10.00	83.3	3.516	1.320	0.423	2.018
Variació a/b per RT constant						
ratio inicial= 1.985 desviació= .01						
a= 4.30/ 3.6 / .1	b= 10 / 10.6 / .2					
Variació a/b per S constant						
a= 4.3 / 4.6 / .1						
4.30	10.00	77.8	3.516	1.348	0.423	1.985
4.40	9.77	77.8	3.598	1.353	0.423	2.025
4.50	9.56	77.8	3.680	1.359	0.423	2.065
4.60	9.35	77.8	3.762	1.365	0.423	2.104

variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= 1.4678
c= .76 d= 0 f= 0
kn= 5 4.4 1.25 4.4 5 1.25 1.7 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 .3977 0 0
alfa= 1 1 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
4.30	10.00	77.8	3.227	1.345	0.423	1.825
Variació a amb b constant						
a= 4.30/ 4.6 / .1						
4.30	10.00	77.8	3.227	1.345	0.423	1.825
4.40	10.00	79.6	3.227	1.335	0.423	1.836
4.50	10.00	81.5	3.227	1.325	0.423	1.846
4.60	10.00	83.3	3.227	1.316	0.423	1.855
Variació a/b per RT constant						
ratio inicial= 1.825 desviació= .01						
a= 4.30/ 4.6 / .1	b= 10 / 10.6 / .2					
	10.00	77.8	3.227	1.345	0.423	1.825
	10.20	83.1	3.163	1.312	0.423	1.823
	10.20	84.9	3.163	1.303	0.423	1.832
Variació a/b per S constant						
a= 4.3 / 4.6 / .1						
4.30	10.00	77.8	3.227	1.345	0.423	1.825
4.40	9.77	77.8	3.302	1.350	0.423	1.862
4.50	9.56	77.8	3.377	1.355	0.423	1.899
4.60	9.35	77.8	3.452	1.361	0.423	1.935

variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= 1.4678
c= .796 d= 0 f= 0
kn= 5 4.4 1.25 4.4 5 1.25 1.7 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 .1578 0 0
alfa= .9 1.1 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
4.30	10.00	77.8	4.702	1.343	0.423	2.662
Variació a amb b constant						
a= 4.30/ 4.6 / .1						
4.30	10.00	77.8	4.702	1.343	0.423	2.662
4.40	10.00	79.6	4.702	1.333	0.423	2.677
4.50	10.00	81.5	4.702	1.323	0.423	2.692
4.60	10.00	83.3	4.702	1.314	0.423	2.706
Variació a/b per RT constant						
ratio inicial= 2.662 desviació= .01						
a= 4.30/ 4.6 / .1	b= 10 / 10.6 / .2					
	10.00	77.8	4.702	1.343	0.423	2.662
	10.20	83.1	4.609	1.311	0.423	2.659
Variació a/b per S constant						
a= 4.3 / 4.6 / .1						
4.30	10.00	77.8	4.702	1.343	0.423	2.662
4.40	9.77	77.8	4.811	1.348	0.423	2.716
4.50	9.56	77.8	4.920	1.353	0.423	2.770
4.60	9.35	77.8	5.030	1.359	0.423	2.825

edifici: mbmsab50
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= 1.4678
c= .822 d= 0 f= 0
kn= 5 4.4 1.25 4.4 5 .4 1.7 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 .137 0 0
alfa= .8 1.2 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
4.30	10.00	77.8	5.891	1.305	0.423	3.409

edifici: mbmsab
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= 1.4678
c= 1 d= 0 f= 0
kn= 5 4.4 .4 4.4 5 1.25 1.7 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .2 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 1 0 0
alfa= 1.2 .8 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
4.30	10.00	77.8	3.404	1.318	0.423	1.955

edifici: mbmsab
variant 3 orientació principal=este y oeste HIVERN
Rv= 2800 D= 0 rh= 1.4678
c= .76 d= 0 f= 0
kn= 5 4.4 .4 4.4 5 .4 1.7 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .2 .1 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 .3977 0 0
alfa= 1 1 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
4.30	10.00	77.8	2.508	1.290	0.423	1.464

edifici: mbmsab
variant 5 orientació principal=sureste y suroeste HIVERN
Rv= 2800 D= 0 rh= 1.4678
c= .796 d= 0 f= 0
kn= 5 4.4 1.25 4.4 5 .4 1.7 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 .1578 0 0
alfa= .9 1.1 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
4.30	10.00	77.8	4.545	1.310	0.423	2.623

```
44 REM *************** ESQUELET DE L'EDIFICI:mbmsab ESQU      ****************
45 REM
50 DU=CR1*(2.232*A*C*.7+1.116*A*.7)                          'façana 1 - Capt.trans
. CRi*s*t
52 DA=CR2*(.781*A*.7)                    'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*0                          'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*0                          'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*0                          'patis    - Capt.transp. CRi*s*t
60 DF=CR1*1.5837*A*CK3*.6                        'façana 1 - Capt.opacs  CRi*s*ab
*ckn
62 DD=CR2*1.9186*A*CK6*.6                        'façana 2 - Capt.opacs  CRi*s*ab
*ckn
64 DF=CR3*0                          'façana 3 - Capt.opacs  CRi*s*abs*ckn
66 DJ=CR4*0                          'façana 4 - Capt.opacs  CRi*s*abs*ckn
68 DG=.05*0                          'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=2.4*0                          'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=1.81*A*B                       'superfície en planta   funció a i b
74 DU=A1*(2.232*A*K1+1.116*A*K2+1.5837*A*K3)                         'façana 1 -
ransmissió  ai*s*kn
76 DK=A2*(.781*A*K4+2.121*A*K5+1.9186*A*K6+1.68*K7)                          'faç
a 2 - Transmissió  ai*s*kn
78 DL=A3*0                           'façana 3 - Transmissió  ai*s*kn
80 DM=A4*0                           'façana 4 - Transmissió  ai*s*kn
82 DH=.8*0                           'patis    - Transmissió  ai*s*kn
84 DV=0                              'terra    - Transmissió  s*kn
86 DW=(9.828*B*K8)+(1.81*A*B*K9)                                  'locals   - Transmiss
ó  s*kn
88 DX=0                              'coberta  - Transmissió  s*kn
89 RETURN
90 B=43/A                            'valor b per S constant   (funció de a)
```

edifici: mbmsab
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 37.608
c= .708 d= 0 f= 0
kn= 5 4.4 1.25 4.4 5 1.25 1.7 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 .756 0 0
alfa= .9 .8 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
4.30	10.00	77.8	5.337	1.132	10.831	0.446
variació a amb b constant						
a= 4.30/ 4.6 / .1						
4.30	10.00	77.8	5.337	1.132	10.831	0.446
4.40	10.00	79.6	5.337	1.124	10.831	0.446
4.50	10.00	81.5	5.337	1.116	10.831	0.446
4.60	10.00	83.3	5.337	1.108	10.831	0.447
Variació a/b per RT constant						
ratio inicial= .446 desviació= .01						
a= 4.30/ 4.6 / .1	b= 10 / 10.6 / .2					
	10.00	77.8	5.337	1.132	10.831	0.446
	10.20	79.4	5.233	1.121	10.831	0.437
	10.00	79.6	5.337	1.124	10.831	0.446
	10.20	81.2	5.233	1.113	10.831	0.438
	10.00	81.5	5.337	1.116	10.831	0.446
	10.20	83.1	5.233	1.105	10.831	0.438
	10.00	83.3	5.337	1.108	10.831	0.447
	10.20	84.9	5.233	1.098	10.831	0.438
Variació a/b per S constant						
a= 4.3 / 4.6 / .1						
4.30	10.00	77.8	5.337	1.132	10.831	0.446
4.40	9.77	77.8	5.461	1.137	10.831	0.456
4.50	9.56	77.8	5.586	1.142	10.831	0.466
4.60	9.35	77.8	5.710	1.147	10.831	0.476

edifici: mbmsab
variant 2 orientació principal=nòrte ESTIU
Rv= 2050 D= 0 rh= 37.608
c= .187 d= 0 f= 0
kn= 5 4.4 1.25 4.4 5 1.25 1.7 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 1 0 0
alfa= .8 .9 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
4.30	10.00	77.8	3.901	1.131	10.831	0.326
Variació a amb b constant						
a= 4.30/ 4.6 / .1						
4.30	10.00	77.8	3.901	1.131	10.831	0.326
4.40	10.00	79.6	3.901	1.122	10.831	0.326
4.50	10.00	81.5	3.901	1.114	10.831	0.326
4.60	10.00	83.3	3.901	1.106	10.831	0.326
Variació a/b per RT constant						
ratio inicial= .326 desviació= .01						
a= 4.30/ 4.6 / .1	b= 10 / 10.6 / .2					
	10.00	77.8	3.901	1.131	10.831	0.326
	10.20	79.4	3.824	1.120	10.831	0.320
	10.00	79.6	3.901	1.122	10.831	0.326
	10.20	81.2	3.824	1.111	10.831	0.320
	10.00	81.5	3.901	1.114	10.831	0.326
	10.20	83.1	3.824	1.103	10.831	0.320
	10.00	83.3	3.901	1.106	10.831	0.326
	10.20	84.9	3.824	1.096	10.831	0.320
Variació a/b per S constant						
a= 4.3 / 4.6 / .1						
4.30	10.00	77.8	3.901	1.131	10.831	0.326
4.40	9.77	77.8	3.992	1.135	10.831	0.333
4.50	9.56	77.8	4.082	1.140	10.831	0.341
4.60	9.35	77.8	4.173	1.145	10.831	0.348

edifici: mbmsab
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 21.713
c= .815 d= 0 f= 0
kn= 5 4.4 1.25 4.4 5 1.25 1.7 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 1.345 0 0
alfa= 1 1 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
4.30	10.00	77.8	8.171	1.229	6.253	1.092
Variació a amb b constant						
a= 4.30/ 4.6 / .1						
4.30	10.00	77.8	8.171	1.229	6.253	1.092
4.40	10.00	79.6	8.171	1.220	6.253	1.093
4.50	10.00	81.5	8.171	1.212	6.253	1.094
4.60	10.00	83.3	8.171	1.204	6.253	1.095
Variació a/b per RT constant						
ratio inicial= 1.092 desviació= .01						
a= 4.30/ 4.6 / .1	b= 10 / 10.6 / .2					
	10.00	77.8	8.171	1.229	6.253	1.092
	10.00	79.6	8.171	1.220	6.253	1.093
	10.00	81.5	8.171	1.212	6.253	1.094
	10.00	83.3	8.171	1.204	6.253	1.095
Variació a/b per S constant						
a= 4.3 / 4.6 / .1						
4.30	10.00	77.8	8.171	1.229	6.253	1.092
4.40	9.77	77.8	8.361	1.235	6.253	1.116
4.50	9.56	77.8	8.551	1.242	6.253	1.140
4.60	9.35	77.8	8.741	1.249	6.253	1.165

edifici: mbmsab
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 30.707
c= .741 d= 0 f= 0
kn= 5 4.4 1.25 4.4 5 1.25 1.7 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 1.07458 0 0
alfa= .95 .9 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
4.30	10.00	77.8	7.013	1.180	8.844	0.699
Variació a amb b constant						
a= 4.30/ 4.6 / .1						
4.30	10.00	77.8	7.013	1.180	8.844	0.699
4.40	10.00	79.6	7.013	1.172	8.844	0.700
4.50	10.00	81.5	7.013	1.164	8.844	0.700
4.60	10.00	83.3	7.013	1.156	8.844	0.701
Variació a/b per RT constant						
ratio inicial= .699 desviació= .01						
a= 4.30/ 4.6 / .1	b= 10 / 10.6 / .2					
	10.00	77.8	7.013	1.180	8.844	0.699
	10.00	79.6	7.013	1.172	8.844	0.700
	10.00	81.5	7.013	1.164	8.844	0.700
	10.00	83.3	7.013	1.156	8.844	0.701
Variació a/b per S constant						
a= 4.3 / 4.6 / .1						
4.30	10.00	77.8	7.013	1.180	8.844	0.699
4.40	9.77	77.8	7.176	1.186	8.844	0.715
4.50	9.56	77.8	7.339	1.192	8.844	0.731
4.60	9.35	77.8	7.502	1.198	8.844	0.747

edifici: bio mbmsab
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 37.608
c= .708 d= 0 f= 0
kn= 5 4.4 1.25 4.4 5 .4 1.7 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 .756 0 0
alfa= .9 .8 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
4.30	10.00	77.8	4.790	1.108	10.831	0.401

edifici: bio mbmsab
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 37.608
c= .187 d= 0 f= 0
kn= 5 4.4 .4 4.4 5 1.25 1.7 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .2 .1 .1 .6 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 1 0 0
alfa= .8 .9 0 0

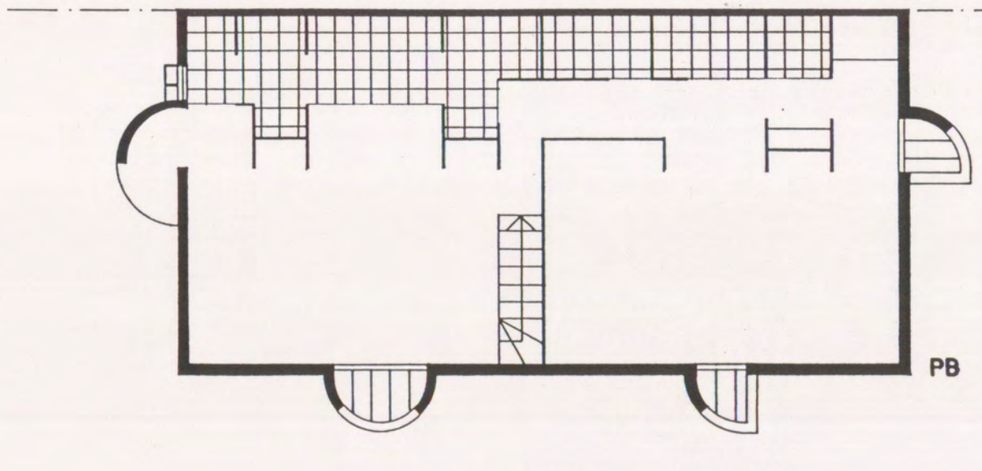
a	b	S	I	Gt	Gv	R.T.
Edifici original						
4.30	10.00	77.8	3.449	1.111	10.831	0.288

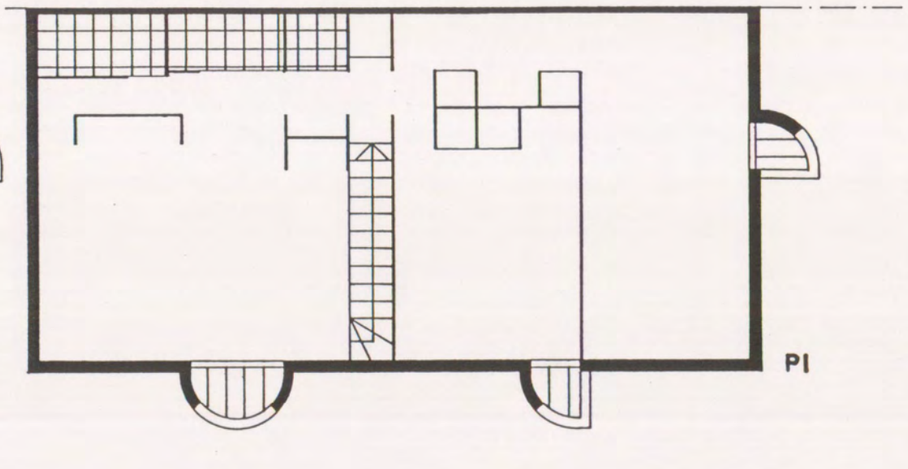
edifici: bio mbmsab
variant 3 orientació principal=este y oeste ESTIU
Rv= 2050 D= 0 rh= 21.713
c= .815 d= 0 f= 0
kn= 5 4.4 .4 4.4 5 .4 1.7 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .2 .1 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 1.345 0 0
alfa= 1 1 0 0

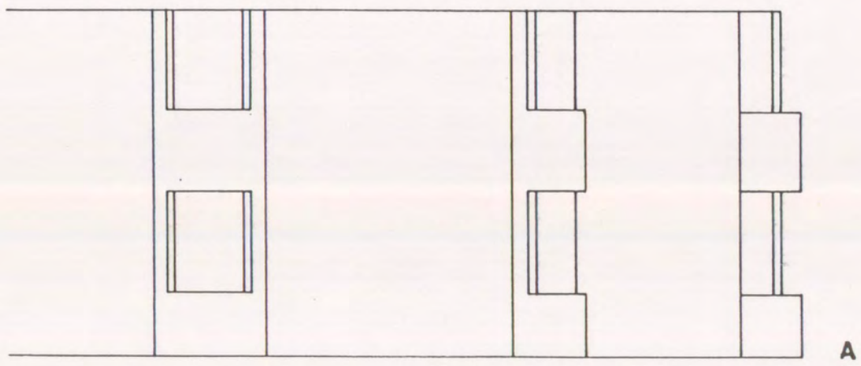
a	b	S	I	Gt	Gv	R.T.
Edifici original						
4.30	10.00	77.8	6.393	1.174	6.253	0.860

edifici: bio mbmsab
variant 4 orientació principal=sureste y suroeste ESTIU
Rv= 2050 D= 0 rh= 30.707
c= .741 d= 0 f= 0
kn= 5 4.4 1.25 4.4 5 .4 1.7 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .1 .6 .1 .1 .2 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 1.07458 0 0
alfa= .95 .9 0 0

a	b	S	I	Gt	Gv	R.T.
Edifici original						
4.30	10.00	77.8	6.235	1.153	8.844	0.623







2.2.B.7

CONJUNTO VIV WALDEN 7
SANT JUST DESVERN
TALLER ARQ. R.BOFILL

DATOS GEOMETRICOS

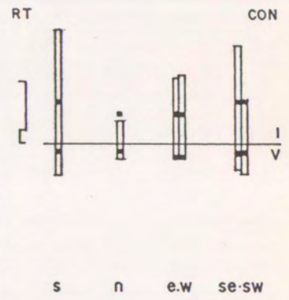
a = 11,50 m
b = 5,60 m
S = 128,80 m² V = 386,40 m3
Si/S = 0,13 Sit/Sio = 0,16

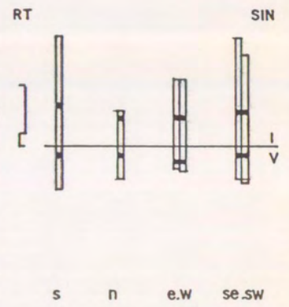
RATIOS TERMICOS (°C)

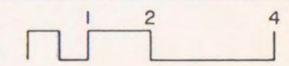
	sin aislar	aislado
invierno		
S	8,92	9,00
N	2,97	1,99
E	5,41	5,19
W	5,41	5,22
NE	8,90	7,98
SW	7,27	7,67
verano		
S	3,55	2,57
N	2,89	1,31
E	1,93	1,23
W	1,97	1,26
SE	2,64	2,36
SW	2,86	2,55

MASA TERMICA (kcal/°C m3)

27,60 27,60







BARCELONA 85·88
E.T.S.A.B. U.P.C.

TESIS DOCTORAL · BIOCLIMATISMO Y TIPO ARQUITECTONICO EN CATALUÑA EN EL PERIODO 1930 1985 · VICTOR SEGUI SANTANA

CONJUNTO VIVIENDAS WALDEN 7 S. JUST D'ESUERN . TALLER ARQUITECTURA R. BOFILL. 22B7

CAPTORES TRANSPARENTES	1	V. SUR 1	S	0.7513 AC
			t	0.7
			CR	CR1
	2	V. SUR 2	S	0.3756 AD
			t	0.7
			CR	CR1
	3	V. ESTE	S	0.7714 BF
			t	0.7
			CR	CR3
	4		S	
			t	
			CR	
	5		S	
			t	
			CR	
	6		S	
			t	
			CR	
CAPTORES OPACOS	1	P SUR	S	4.273 A
			CK	CK2
			α	0.6
			CR	CR1
	2	P. ESTE	S	4.628 B
			CK	CK4
			α	0.6
			CR	CR3
	3	P. OESTE	S	4.966 B
			CK	CK6
			α	0.6
			CR	CR4
	4		S	
			CK	
			α	
			CR	
	5		S	
			CK	
			α	
			CR	
	6		S	
			CK	
			α	
			CR	
	7		S	
			CK	
			α	
			CR	
	8		S	
			CK	
			α	
			CR	
	9		S	
			CK	
			α	
			CR	
CUBIERTA	1		S	
			CK	
			α	

TRANSMISION FACHADAS	1	V. SUR	S	1.127 A
			K	K1
			K	K1
	2	P SUR	S	4.273 A
			K	K2
			K	K1
	3	V. ESTE	S	0.7714 B
			K	K3
			K	K3
	4	P. ESTE	S	4.628 B
			K	K4
			K	K3
	5	V OESTE	S	0.4639 B
			K	K5
			K	K4
	6	P. OESTE	S	4.966 B
			K	K6
			K	K4
	7		S	
			K	
			K	
	8		S	
			K	
			K	
	9		S	
			K	
			K	
	10		S	
			K	
			K	
	11		S	
			K	
			K	
	12		S	
			K	
			K	
	13		S	
			K	
			K	
	14		S	
			K	
			K	
	15		S	
			K	
			K	
	16		S	
			K	
			K	

INFILTRACIONES			S	19.71
			R	0.612
SEPARACION TERRENO	1		S	
			K	
	2		S	
			K	
SEPARACION OTROS LOCALES	1	MEDIAN	S	54 B
			K	K7
	2	FORJADO	S	2.A.B
			K	K8
	3		S	
			K	
	4		S	
			K	
	5		S	
			K	
TRANSMISION PIEL HORIZONT. CUBIERTA	1		S	
			K	
	2		S	
			K	

SUPERFICIE EN PLANTA	(2. A. B).

CONJUNTO VIVIENDAS WALDEN 7. SSJUST DESVERN. TALLER ARQUITECTURA R. BOFILL. 22B7

VARIABLES GEOMETRICAS	A	B	Amin.	Amax.	I	Bmin.	Bmax.	I	DESVIACION	B para S Cte.	VOLUMEN	SUPERFICIE
	11.5	5.6									386.4	128.8

R=2800	INVIERNO	K_1	K_2	K_3	K_4	K_5	K_6	K_7	K_8	K_9	K_{10}	K_{11}	K_{12}	K_{13}	K_{14}	K_{15}	K_{16}	K_{17}	K_{18}	VERANO	R=2050
		4.4	1.758	4.4	1.758	4.4	1.758	1.7	1.34												

O	RH	COEFICIENTES								COEFICIENTES DE TRANSMISION K																		COEFICIENTES							RH	O
S		CR_1	1	CR_2		CR_3	0.3977	CR_4	0.3977	K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	1.345	CR_4	1.345	CR_3		CR_2	1	CR_1		S
		K_1	0.8	K_2		K_3	1	K_4	1																			1	K_4	1	K_3		K_2	0.9	K_1		
	0.612	C	0.808	D	0.741	F	0.240	G		4.4	1.758	4.4	0.45	4.4	0.45	1.7	1.34												G	0.835	F	0.902	D	0.748	C	8.713	
N		CR_1	0.137	CR_2		CR_3	0.3977	CR_4	0.3977	K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	1.345	CR_4	1.345	CR_3		CR_2	0.756	CR_1		N
		K_1	1.2	K_2		K_3	1	K_4	1																			1	X_4	1	K_3		K_2	0.8	K_1		
	0.612	C	1	D	1	F	1	G		4.4	0.45	4.4	0.45	4.4	0.45	1.7	1.34												G	0.944	F	0.187	D	0.187	C	8.713	
E		CR_1	0.3977	CR_2		CR_3	1	CR_4	0.137	K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	1	CR_4	0.756	CR_3		CR_2	1.345	CR_1		E
		K_1	1	K_2		K_3	0.8	K_4	1.2																			0.9	K_4	0.8	K_3		K_2	1	K_1		
	0.612	C	0.382	D	0.240	F	0.741	G		4.4	0.45	4.4	0.45	4.4	1.758	1.7	1.34												G	0.187	F	0.944	D	0.764	C	17.798	
W		CR_1	0.3977	CR_2		CR_3	1	CR_4	0.137	K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	0.756	CR_4	1	CR_3		CR_2	1.345	CR_1		W
		K_1	1	K_2		K_3	0.8	K_4	1.2																			0.8	K_4	0.9	K_3		K_2	1	K_1		
	0.612	C	0.382	D	0.240	F	0.741	G		〃	〃	〃	1.758	〃	0.45	〃	〃												G	0.779	F	0.835	D	0.764	C	17.798	
SE		CR_1	0.768	CR_2		CR_3	0.1578	CR_4	0.768	K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	1.2469	CR_4	1.07458	CR_3		CR_2	1.2469	CR_1		SE
		K_1	0.9	K_2		K_3	1.1	K_4	1.1																			0.95	K_4	0.9	K_3		K_2	0.95	K_1		
	0.612	C	0.679	D	0.984	F	1	G		4.4	1.758	4.4	0.45	4.4	1.758	1.7	1.34												G	0.187	F	0.637	D	0.686	C	12.322	
SW		CR_1	0.768	CR_2		CR_3	0.768	CR_4	0.1578	K'_1	K'_2	K'_3	K'_4	K'_5	K'_6	K'_7	K'_8	K'_9	K'_{10}	K'_{11}	K'_{12}	K'_{13}	K'_{14}	K'_{15}	K'_{16}	K'_{17}	K'_{18}	1.07458	CR_4	1.2469	CR_3		CR_2	1.2469	CR_1		SW
		K_1	0.9	K_2		K_3	0.9	K_4	1.1																			0.9	K_4	0.95	K_3		K_2	0.95	K_1		
	0.612	C	0.679	D	0.514	F	0.514	G		〃	〃	〃	1.758	〃	0.45	〃	〃												G	0.932	F	0.932	D	0.686	C	12.322	

```
44 REM *************** ESQUELET DE L'EDIFICI:walden HIVERN     ******************
45 REM
50 DO=CR1*(.7513*A*C*.7+.3756*A*D)'façana 1 - Capt.transp. CRi*s*t
52 DA=CR2*O                        'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*.7714*B*F*.7          'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*O                        'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*O                        'patis    - Capt.transp. CRi*s*t
60 DP=CR1*(4.273*A*CK2*.6)                        'façana 1 - Capt.opacs  CRi*s*a
s*ckn
62 DD=CR2*O                        'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*4.628*B*CK4*.6                          'façana 3 - Capt.opacs  CRi*s*abs
ckn
66 DJ=CR4*4.966*B*CK6*.6                          'façana 4 - Capt.opacs  CRi*s*abs
ckn
68 DG=.05*O                        'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=.52*O                        'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=2*A*B                        'superfície en planta   funció a i b
74 DU=A1*(1.127*A*K1+4.273*A*K2)                          'façana 1 - Transmissió
ai*s*kn
76 DK=A2*O                         'façana 2 - Transmissió  ai*s*kn
78 DL=A3*(.7714*B*K3+4.628*B*K4)                          'façana 3 - Transmissió
ai*s*kn
80 DM=A4*(.4339*B*K5+4.966*B*K6)                          'façana 4 - Transmissió
ai*s*kn
82 DH=.8*O                         'patis    - Transmissió  ai*s*kn
84 DV=O                            'terra    - Transmissió  s*kn
86 DW=(5.4*B*K7)+(2*A*B*K8)           'locals   - Transmissió  s*kn
88 DX=O                            'coberta  - Transmissió  s*kn
89 RETURN
90 B=5.6                                  'valor b per S constant   (funció de a)
```

edifici: walden
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= .612
c= .808 d= .741 f= .24
kn= 4.4 1.758 4.4 1.758 4.4 1.758 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 .3977 .3977
alfa= .8 0 1 1

a	b	S	I	Gt	Gv	R.T.
Edifici original						
11.50	5.60	128.8	10.193	0.966	0.176	8.922
Variació a amb b constant						
a= 11.50/ 11.5 / .1						
11.50	5.60	128.8	10.193	0.966	0.176	8.922

edifici: walden
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= .612
c= 1 d= 1 f= 1
kn= 4.4 1.758 4.4 1.758 4.4 1.758 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 0 .3977 .3977
alfa= 1.2 0 1 1

a	b	S	I	Gt	Gv	R.T.
Edifici original						
11.50	5.60	128.8	3.846	1.115	0.176	2.979
Variació a amb b constant						
a= 11.50/ 11.5 / .1						
11.50	5.60	128.8	3.846	1.115	0.176	2.979

edifici: walden
variant 3 orientació principal=este HIVERN
Rv= 2800 D= 0 rh= .612
c= .582 d= 1 f= 1
kn= 4.4 1.758 4.4 1.758 4.4 1.758 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 .137 1
alfa= 1 0 1.2 .8

a	b	S	I	Gt	Gv	R.T.
Edifici original						
11.50	5.60	128.8	6.599	1.043	0.176	5.413
Variació a amb b constant						
a= 11.50/ 11.5 / .1						
11.50	5.60	128.8	6.599	1.043	0.176	5.413

edifici: walden
variant 4 orientació principal=oeste HIVERN
Rv= 2800 D= 0 rh= .612
c= .582 d= .24 f= .741
kn= 4.4 1.758 4.4 1.758 4.4 1.758 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 1 .137
alfa= 1 0 .8 1.2

a	b	S	I	Gt	Gv	R.T.
Edifici original						
11.50	5.60	128.8	6.579	1.038	0.176	5.419
Variació a amb b constant						
a= 11.50/ 11.5 / .1						
11.50	5.60	128.8	6.579	1.038	0.176	5.419

edifici: walden
variant 5 orientació principal=sureste HIVERN
Rv= 2800 D= 0 rh= .612
c= .679 d= .984 f= 1
kn= 4.4 1.758 4.4 1.758 4.4 1.758 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 .578 .768
alfa= .9 0 1.1 .9

a	b	S	I	Gt	Gv	R.T.
Edifici original						
11.50	5.60	128.8	10.517	1.004	0.176	8.907
Variació a amb b constant						
a= 11.50/ 11.5 / .1						
11.50	5.60	128.8	10.517	1.004	0.176	8.907

edifici: walden
variant 1 orientació principal=suroeste HIVERN
Rv= 2800 D= 0 rh= .612
c= .679 d= .514 f= .514
kn= 4.4 1.758 4.4 1.758 4.4 1.758 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 .768 .1578
alfa= .9 0 .9 1.1

a	b	S	I	Gt	Gv	R.T.
Edifici original						
11.50	5.60	128.8	8.570	1.002	0.176	7.274
Variació a amb b constant						
a= 11.50/ 11.5 / .1						
11.50	5.60	128.8	8.570	1.002	0.176	7.274

edifici: walden
variant 1 orientació principal=sur HIVERN
Rv= 2800 D= 0 rh= .612
c= .808 d= .741 f= .24
kn= 4.4 1.758 4.4 .45 4.4 .45 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .2 .1 .2 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 .3977 .3977
alfa= .8 0 1 1

	a	b	S	I	Gt	Gv	R.T.
Edifici original	11.50	5.60	128.8	8.644	0.784	0.176	9.000

edifici: walden
variant 2 orientació principal=norte HIVERN
Rv= 2800 D= 0 rh= .612
c= 1 d= 1 f= 1
kn= 4.4 .45 4.4 .45 4.4 .45 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .2 .1 .2 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .137 0 .3977 .3977
alfa= 1.2 0 1 1

	a	b	S	I	Gt	Gv	R.T.
Edifici original	11.50	5.60	128.8	1.810	0.733	0.176	1.990

edifici: walden
variant 3 orientació principal=este HIVERN
Rv= 2800 D= 0 rh= .612
c= .582 d= 1 f= 1
kn= 4.4 .45 4.4 .45 4.4 1.758 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .2 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 .137 1
alfa= 1 0 1.2 .8

	a	b	S	I	Gt	Gv	R.T.
Edifici original	11.50	5.60	128.8	4.926	0.771	0.176	5.198

edifici: walden
variant 4 orientació principal=oeste HIVERN
Rv= 2800 D= 0 rh= .612
c= .582 d= .24 f= .741
kn= 4.4 .45 4.4 1.758 4.4 .45 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .6 .1 .2 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .3977 0 1 .137
alfa= 1 0 .8 1.2

	a	b	S	I	Gt	Gv	R.T.
Edifici original	11.50	5.60	128.8	4.887	0.758	0.176	5.228

edifici: walden
variant 5 orientació principal=sureste HIVERN
Rv= 2800 D= 0 rh= .612
c= .679 d= .984 f= 1
kn= 4.4 1.758 4.4 .45 4.4 1.758 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .2 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 .1578 .768
alfa= .9 0 1.1 .9

	a	b	S	I	Gt	Gv	R.T.
Edifici original	11.50	5.60	128.8	8.654	0.908	0.176	7.981

edifici: walden
variant 6 orientació principal=suroeste HIVERN
Rv= 2800 D= 0 rh= .612
c= .679 d= .514 f= .514
kn= 4.4 1.758 4.4 1.758 4.4 .45 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .2 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .768 0 .768 .1578
alfa= .9 0 .9 1.1

	a	b	S	I	Gt	Gv	R.T.
Edifici original	11.50	5.60	128.8	8.252	0.898	0.176	7.679

```
44 REM *************** ESQUELET DE L'EDIFICI:walden ***********************
45 REM
50 DO=CR1*(.7513*A*C*.7+.3756*A*D)'façana 1 - Capt.transp. CRi*s*t
52 DA=CR2*O                        'façana 2 - Capt.transp. CRi*s*t
54 DB=CR3*.7714*B*F*.7          'façana 3 - Capt.transp. CRi*s*t
56 DC=CR4*O                        'façana 4 - Capt.transp. CRi*s*t
58 DE=.05*O                        'patis    - Capt.transp. CRi*s*t
60 DF=CR1*(4.273*A*CK2*.6)                      'façana 1 - Capt.opacs  CRi*s*
s*ckn
62 DD=CR2*O                        'façana 2 - Capt.opacs  CRi*s*abs*ckn
64 DF=CR3*4.628*B*CK4*.6                        'façana 3 - Capt.opacs  CRi*s*ab
ckn
66 DJ=CR4*4.966*B*CK6*.6                        'façana 4 - Capt.opacs  CRi*s*ab
ckn
68 DG=.05*O                        'patis    - Capt.opacs  CRi*s*abs*ckn
70 DN=2.4*O                        'coberta  - Capt.opacs  CRi*s*abs*ckn
72 DQ=2*A*B                        'superficie en planta   funció a i b
74 DU=A1*(1.127*A*K1+4.273*A*K2)                        'façana 1 - Transmissió
ai*s*kn
76 DK=A2*O                         'façana 2 - Transmissió  ai*s*kn
78 DL=A3*(.7714*B*K3+4.628*B*K4)                        'façana 3 - Transmissió
ai*s*kn
80 DM=A4*(.4339*B*K5+4.966*B*K6)                        'façana 4 - Transmissió
ai*s*kn
82 DH=.8*O                         'patis    - Transmissió  ai*s*kn
84 DV=0                            'terra    - Transmissió  s*kn
86 DW=(5.4*B*K7)+(2*A*B*K8)             'locals   - Transmissió  s*kn
88 DX=0                            'coberta  - Transmissió  s*kn
89 RETURN
90 B=5.6                           'valor b per S constant   (funció de a)
```

edifici: walden
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 8.713
c= .748 d= .902 f= .835
kn= 4.4 1.758 4.4 1.758 4.4 1.758 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 1.345 1.345
alfa= .9 0 1 1

	a	b	S	I	Gt	Gv	R.T.
Edifici original	11.50	5.60	128.8	12.273	0.945	2.509	3.552

edifici: walden
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 8.713
c= .187 d= .187 f= .944
kn= 4.4 1.758 4.4 1.758 4.4 1.758 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 0 1.345 1.345
alfa= .8 0 1 1

	a	b	S	I	Gt	Gv	R.T.
Edifici original	11.50	5.60	128.8	9.880	0.908	2.509	2.891

edifici: walden
variant 3 orientació principal=este ESTIU
Rv= 2050 D= 0 rh= 17.798
c= .764 d= .944 f= .187
kn= 4.4 1.758 4.4 1.758 4.4 1.758 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 .756 1
alfa= 1 0 .8 .9

	a	b	S	I	Gt	Gv	R.T.
Edifici original	11.50	5.60	128.8	11.713	0.933	5.126	1.933

edifici: walden
variant 4 orientació principal=oeste ESTIU
Rv= 2050 D= 0 rh= 17.798
c= .764 d= .835 f= .779
kn= 4.4 1.758 4.4 1.758 4.4 1.758 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 1 .756
alfa= 1 0 .9 .8

	a	b	S	I	Gt	Gv	R.T.
Edifici original	11.50	5.60	128.8	11.962	0.935	5.126	1.973

edifici: walden
variant 5 orientació principal=sureste ESTIU
Rv= 2050 D= 0 rh= 12.322
c= .686 d= .637 f= .187
kn= 4.4 1.758 4.4 1.758 4.4 1.758 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 1.07458 1.2469
alfa= .95 0 .9 .95

	a	b	S	I	Gt	Gv	R.T.
Edifici original	11.50	5.60	128.8	11.888	0.939	3.549	2.648

edifici: walden
variant 6 orientació principal=suroeste ESTIU
Rv= 2050 D= 0 rh= 12.322
c= .686 d= .932 f= .932
kn= 4.4 1.758 4.4 1.758 4.4 1.758 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 1.2469 1.07458
alfa= .95 0 .95 .9

	a	b	S	I	Gt	Gv	R.T.
Edifici original	11.50	5.60	128.8	12.856	0.940	3.549	2.864

edifici: bio walden
variant 1 orientació principal=sur ESTIU
Rv= 2050 D= 0 rh= 8.713
c= .748 d= .902 f= .835
kn= 4.4 1.758 4.4 .45 4.4 .45 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .2 .1 .2 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1 0 1.345 1.345
alfa= .9 0 1 1

a	b	S	I	Gt	Gv	R.T.
Edifici original						
11.50	5.60	128.8	8.439	0.763	2.509	2.578

Variació a amb b constant
edifici: bio walden
variant 2 orientació principal=norte ESTIU
Rv= 2050 D= 0 rh= 8.713
c= .187 d= .187 f= .944
kn= 4.4 .45 4.4 .45 4.4 .45 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .2 .1 .2 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= .756 0 1.345 1.345
alfa= .8 0 1 1

a	b	S	I	Gt	Gv	R.T.
Edifici original						
11.50	5.60	128.8	4.075	0.593	2.509	1.313

edifici: bio walden
variant 3 orientació principal=este ESTIU
Rv= 2050 D= 0 rh= 17.798
c= .764 d= .944 f= .187
kn= 4.4 .45 4.4 .45 4.4 1.758 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .2 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 .756 1
alfa= 1 0 .8 .9

a	b	S	I	Gt	Gv	R.T.
Edifici original						
11.50	5.60	128.8	7.167	0.697	5.126	1.230

edifici: bio walden
variant 4 orientació principal=oeste ESTIU
Rv= 2050 D= 0 rh= 17.798
c= .764 d= .885 f= .779
kn= 4.4 .45 4.4 1.758 4.4 .45 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .2 .1 .6 .1 .2 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.345 0 1 .756
alfa= 1 0 .9 .8

a	b	S	I	Gt	Gv	R.T.
Edifici original						
11.50	5.60	128.8	7.340	0.693	5.126	1.261

edifici: bio walden
variant 5 orientació principal=sureste ESTIU
Rv= 2050 D= 0 rh= 12.322
c= .686 d= .637 f= .187
kn= 4.4 1.758 4.4 .45 4.4 1.758 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .2 .1 .6 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 1.07458 1.2469
alfa= .95 0 .9 .95

a	b	S	I	Gt	Gv	R.T.
Edifici original						
11.50	5.60	128.8	10.411	0.860	3.549	2.361

edifici: bio walden
variant 6 orientació principal=suroeste ESTIU
Rv= 2050 D= 0 rh= 12.322
c= .686 d= .932 f= .932
kn= 4.4 1.758 4.4 1.758 4.4 .45 1.7 1.34 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ckn= .1 .6 .1 .6 .1 .2 .6 .6 0 0 0 0 0 0 0 0 0 0 0 0 0
en= 0 0 0 0 0 0 0 0 0 0
Cr= 1.2469 0 1.2469 1.07458
alfa= .95 0 .95 .9

a	b	S	I	Gt	Gv	R.T.
Edifici original						
11.50	5.60	128.8	11.271	0.855	3.549	2.559