

Date 4th Sep 2023

Project Hevacomp Upper Project no. -
 Engineer JK Checked by Date checked
 File C:\Users\joe.k\MEP Design\Projects - Documents\22_023 Upper & Lower Campfield - Design\1 Mechanical Services

Design basis

Location Manchester Design day 15 July No external shading is considered
 Resultant room design temperatures used, no room heat losses are added to project totals
 Supply air temp 12 °C Central plant fresh air 12 l/s/person
 No fixed temperature air is included
 Fins are considered
 Outside 29 dry bulb/19.1 wet bulb, Room temperatures not allowed to rise

Rooms included : All rooms selected

Results for room G00 Studio 02 No. off 1

Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	1718	-1855	-1660	-997	90	-2704
2.00	13.7	1718	-2297	-1990	-1041	90	-3520
3.00	12.6	1718	-2656	-2236	-1067	90	-4150
4.00	11.9	1718	-2891	-2383	-1080	90	-4545
5.00	11.7	1718	-3034	-2421	-1083	90	-4730
6.00	12.2	2119	-3052	-2326	-1075	90	-4244
7.00	13.2	4185	-2827	-2093	-1053	90	-1698
8.00	14.9	5192	-2368	-1739	-1009	90	167
9.00	17	4844	-1782	-1293	-934	2818	3654
10.00	19.3	4635	-1114	-790	-823	2818	4727
11.00	21.7	4833	-419	-269	-676	2818	6287
12.00	24.1	5038	249	228	-504	2818	7829
13.00	26.1	5267	836	662	-326	2818	9257
14.00	27.7	5519	1308	1000	-170	2818	10475
15.00	28.7	7374	1667	1213	-62	2818	13011
16.00	29	9574	1814	1286	-24	2818	15469
17.00	28.7	11324	1757	1231	-53	2818	17079
18.00	28	12296	1564	1069	-136	2818	17611 peak
19.00	26.8	12134	1250	809	-260	90	14023
20.00	25.2	11563	824	468	-409	90	12536
21.00	23.3	8920	310	65	-564	90	8821
22.00	21.2	4265	-260	-376	-709	90	3011
23.00	19.1	1718	-815	-828	-832	90	-667
24.00	17.1	1718	-1352	-1265	-928	90	-1737

Peak room load 17611 W at 18.00 hrs (120.5 W/m² and 13.7 W/m³)

Solar load average 43.5 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 1.3444 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G01	Plant	No. off 1			
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	12	-158	-95	26	-216
2.00	13.7	0	10	-190	-99	26	-253
3.00	12.6	0	7	-213	-102	26	-282
4.00	11.9	0	10	-227	-103	26	-295
5.00	11.7	0	6	-231	-103	26	-303
6.00	12.2	0	-7	-222	-103	26	-306
7.00	13.2	0	-18	-200	-100	26	-292
8.00	14.9	0	-22	-166	-96	26	-258
9.00	17	0	-25	-123	-89	848	610
10.00	19.3	0	-28	-75	-78	848	666
11.00	21.7	0	-31	-26	-65	848	727
12.00	24.1	0	-33	22	-48	848	789
13.00	26.1	0	-34	63	-31	848	846
14.00	27.7	0	-32	95	-16	848	895
15.00	28.7	0	-19	116	-6	848	939
16.00	29	0	-11	123	-2	848	957 peak
17.00	28.7	0	-11	117	-5	848	949
18.00	28	0	-9	102	-13	848	928
19.00	26.8	0	-4	77	-25	26	75
20.00	25.2	0	1	45	-39	26	33
21.00	23.3	0	5	6	-54	26	-17
22.00	21.2	0	8	-36	-68	26	-69
23.00	19.1	0	11	-79	-79	26	-122
24.00	17.1	0	12	-121	-89	26	-171

Peak room load 957 W at 16.00 hrs (21.8 W/m² and 7.8 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0727 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G02	Unisex WC's				No. off 1
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	-14	-97	-58	15	-155
2.00	13.7	0	-14	-116	-61	15	-177
3.00	12.6	0	-14	-131	-62	15	-193
4.00	11.9	0	-14	-139	-63	15	-202
5.00	11.7	0	-14	-142	-63	15	-204
6.00	12.2	0	-14	-136	-63	15	-198
7.00	13.2	0	-14	-122	-62	15	-183
8.00	14.9	0	-14	-102	-59	15	-160
9.00	17	0	-14	-76	-55	522	377
10.00	19.3	0	-14	-46	-48	522	413
11.00	21.7	0	-14	-16	-40	522	452
12.00	24.1	0	-14	13	-29	522	491
13.00	26.1	0	-14	39	-19	522	527
14.00	27.7	0	-14	58	-10	522	556
15.00	28.7	0	-14	71	-4	522	575
16.00	29	0	-14	75	-1	522	581 peak
17.00	28.7	0	-14	72	-3	522	576
18.00	28	0	-14	63	-8	522	562
19.00	26.8	0	-14	47	-15	15	33
20.00	25.2	0	-14	27	-24	15	4
21.00	23.3	0	-14	4	-33	15	-29
22.00	21.2	0	-14	-22	-41	15	-63
23.00	19.1	0	-14	-48	-49	15	-97
24.00	17.1	0	-14	-74	-54	15	-128

Peak room load 581 W at 16.00 hrs (21.5 W/m² and 7.7 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0441 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G03	Acc WC	No. off 1			
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	-2	-14	-8	2	-23
2.00	13.7	0	-2	-17	-9	2	-26
3.00	12.6	0	-2	-19	-9	2	-28
4.00	11.9	0	-2	-20	-9	2	-29
5.00	11.7	0	-2	-21	-9	2	-30
6.00	12.2	0	-2	-20	-9	2	-29
7.00	13.2	0	-2	-18	-9	2	-27
8.00	14.9	0	-2	-15	-9	2	-23
9.00	17	0	-2	-11	-8	76	55
10.00	19.3	0	-2	-7	-7	76	60
11.00	21.7	0	-2	-2	-6	76	66
12.00	24.1	0	-2	2	-4	76	71
13.00	26.1	0	-2	6	-3	76	76
14.00	27.7	0	-2	8	-1	76	81
15.00	28.7	0	-2	10	-1	76	83
16.00	29	0	-2	11	0	76	84 peak
17.00	28.7	0	-2	10	0	76	84
18.00	28	0	-2	9	-1	76	81
19.00	26.8	0	-2	7	-2	2	5
20.00	25.2	0	-2	4	-3	2	0
21.00	23.3	0	-2	1	-5	2	-4
22.00	21.2	0	-2	-3	-6	2	-9
23.00	19.1	0	-2	-7	-7	2	-14
24.00	17.1	0	-2	-11	-8	2	-19

Peak room load 84 W at 16.00 hrs (21.5 W/m² and 7.7 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0064 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G04	Services Entrance				No. off 1
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	-2	-81	-49	13	-119
2.00	13.7	0	-3	-97	-51	13	-138
3.00	12.6	0	-3	-109	-52	13	-152
4.00	11.9	0	-3	-117	-53	13	-159
5.00	11.7	0	-4	-118	-53	13	-162
6.00	12.2	0	-8	-114	-53	13	-161
7.00	13.2	0	-11	-102	-51	13	-152
8.00	14.9	0	-12	-85	-49	13	-134
9.00	17	0	-13	-63	-46	436	314
10.00	19.3	0	-14	-39	-40	436	343
11.00	21.7	0	-15	-13	-33	436	375
12.00	24.1	0	-15	11	-25	436	407
13.00	26.1	0	-15	32	-16	436	437
14.00	27.7	0	-15	49	-8	436	461
15.00	28.7	0	-11	59	-3	436	481
16.00	29	0	-9	63	-1	436	488 peak
17.00	28.7	0	-9	60	-3	436	484
18.00	28	0	-9	52	-7	436	473
19.00	26.8	0	-7	40	-13	13	33
20.00	25.2	0	-6	23	-20	13	10
21.00	23.3	0	-4	3	-28	13	-16
22.00	21.2	0	-3	-18	-35	13	-43
23.00	19.1	0	-2	-40	-41	13	-71
24.00	17.1	0	-2	-62	-45	13	-97

Peak room load 488 W at 16.00 hrs (21.6 W/m² and 7.8 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0371 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G05	Bin Store	No. off 1			
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	22	-98	-59	16	-119
2.00	13.7	0	21	-118	-62	16	-142
3.00	12.6	0	18	-132	-63	16	-161
4.00	11.9	0	20	-141	-64	16	-169
5.00	11.7	0	16	-143	-64	16	-175
6.00	12.2	0	2	-138	-64	16	-183
7.00	13.2	0	-9	-124	-62	16	-179
8.00	14.9	0	-12	-103	-60	16	-159
9.00	17	0	-16	-77	-55	526	378
10.00	19.3	0	-19	-47	-49	526	411
11.00	21.7	0	-21	-16	-40	526	448
12.00	24.1	0	-23	14	-30	526	486
13.00	26.1	0	-24	39	-19	526	521
14.00	27.7	0	-22	59	-10	526	552
15.00	28.7	0	-10	72	-4	526	584
16.00	29	0	-3	76	-1	526	597 peak
17.00	28.7	0	-3	73	-3	526	592
18.00	28	0	-1	63	-8	526	580
19.00	26.8	0	4	48	-15	16	53
20.00	25.2	0	9	28	-24	16	29
21.00	23.3	0	14	4	-33	16	0
22.00	21.2	0	18	-22	-42	16	-31
23.00	19.1	0	21	-49	-49	16	-62
24.00	17.1	0	22	-75	-55	16	-92

Peak room load 597 W at 16.00 hrs (21.9 W/m² and 7.8 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0454 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G06	Store	No. off 1			
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	-6	-43	-26	6	-69
2.00	13.7	0	-6	-52	-27	6	-79
3.00	12.6	0	-6	-58	-28	6	-86
4.00	11.9	0	-6	-62	-28	6	-90
5.00	11.7	0	-6	-63	-28	6	-91
6.00	12.2	0	-6	-60	-28	6	-88
7.00	13.2	0	-6	-54	-27	6	-82
8.00	14.9	0	-6	-45	-26	6	-71
9.00	17	0	-6	-34	-24	232	168
10.00	19.3	0	-6	-21	-21	232	184
11.00	21.7	0	-6	-7	-18	232	201
12.00	24.1	0	-6	6	-13	232	218
13.00	26.1	0	-6	17	-8	232	234
14.00	27.7	0	-6	26	-4	232	247
15.00	28.7	0	-6	32	-2	232	255
16.00	29	0	-6	33	-1	232	258 peak
17.00	28.7	0	-6	32	-1	232	256
18.00	28	0	-6	28	-4	232	250
19.00	26.8	0	-6	21	-7	6	14
20.00	25.2	0	-6	12	-11	6	2
21.00	23.3	0	-6	2	-15	6	-13
22.00	21.2	0	-6	-10	-18	6	-28
23.00	19.1	0	-6	-22	-22	6	-43
24.00	17.1	0	-6	-33	-24	6	-57

Peak room load 258 W at 16.00 hrs (21.5 W/m² and 7.7 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0196 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G07	Showers			No. off	
						1	
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	-19	-128	-77	20	-204
2.00	13.7	0	-19	-154	-80	20	-233
3.00	12.6	0	-19	-173	-82	20	-254
4.00	11.9	0	-19	-184	-83	20	-267
5.00	11.7	0	-19	-187	-84	20	-270
6.00	12.2	0	-19	-180	-83	20	-262
7.00	13.2	0	-19	-162	-81	20	-242
8.00	14.9	0	-19	-134	-78	20	-211
9.00	17	0	-19	-100	-72	689	498
10.00	19.3	0	-19	-61	-64	689	546
11.00	21.7	0	-19	-21	-52	689	597
12.00	24.1	0	-19	18	-39	689	649
13.00	26.1	0	-19	51	-25	689	696
14.00	27.7	0	-19	77	-13	689	734
15.00	28.7	0	-19	94	-5	689	759
16.00	29	0	-19	99	-2	689	768 peak
17.00	28.7	0	-19	95	-4	689	761
18.00	28	0	-19	83	-10	689	742
19.00	26.8	0	-19	63	-20	20	44
20.00	25.2	0	-19	36	-32	20	6
21.00	23.3	0	-19	5	-44	20	-38
22.00	21.2	0	-19	-29	-55	20	-83
23.00	19.1	0	-19	-64	-64	20	-127
24.00	17.1	0	-19	-98	-72	20	-168

Peak room load 768 W at 16.00 hrs (21.5 W/m² and 7.7 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0583 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G08	Studio 02				No. off 1
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	1138	-1338	-1508	-906	82	-2532
2.00	13.7	1138	-1652	-1808	-946	82	-3187
3.00	12.6	1138	-1894	-2032	-970	82	-3675
4.00	11.9	1138	-2032	-2165	-981	82	-3958
5.00	11.7	1138	-2091	-2200	-984	82	-4055
6.00	12.2	1609	-2055	-2113	-977	82	-3456
7.00	13.2	4493	-1885	-1901	-957	82	-168
8.00	14.9	6999	-1578	-1580	-916	82	3006
9.00	17	7960	-1186	-1175	-848	2570	7321
10.00	19.3	8251	-739	-718	-748	2570	8616
11.00	21.7	7946	-274	-244	-614	2570	9383
12.00	24.1	7004	172	207	-458	2570	9496 peak
13.00	26.1	5658	565	602	-297	2570	9098
14.00	27.7	4112	886	908	-154	2570	8322
15.00	28.7	3592	1167	1102	-56	2570	8375
16.00	29	3434	1312	1169	-21	2570	8463
17.00	28.7	3292	1302	1119	-48	2570	8234
18.00	28	3164	1181	971	-123	2570	7763
19.00	26.8	3019	960	736	-236	82	4559
20.00	25.2	3498	648	425	-372	82	4281
21.00	23.3	3295	267	59	-513	82	3190
22.00	21.2	2068	-157	-341	-644	82	1007
23.00	19.1	1138	-572	-752	-756	82	-861
24.00	17.1	1138	-971	-1149	-843	82	-1743

Peak room load 9496 W at 12.00 hrs (71.5 W/m² and 8.1 W/m³)

Solar load average 43.9 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.7574 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G09	Restuarant Bin Store				No. off 1
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	540	-669	-194	-116	9	-429
2.00	13.7	540	-827	-232	-121	9	-631
3.00	12.6	540	-949	-261	-124	9	-785
4.00	11.9	540	-1020	-278	-126	9	-874
5.00	11.7	540	-1049	-282	-126	9	-908
6.00	12.2	780	-1031	-271	-125	9	-638
7.00	13.2	2256	-944	-244	-123	9	954
8.00	14.9	3553	-789	-203	-118	9	2452
9.00	17	4068	-592	-151	-109	325	3542
10.00	19.3	4194	-367	-92	-96	325	3965
11.00	21.7	4035	-132	-31	-79	325	4118 peak
12.00	24.1	3546	93	27	-59	325	3932
13.00	26.1	2849	291	77	-38	325	3504
14.00	27.7	2049	453	117	-20	325	2924
15.00	28.7	1779	595	141	-7	325	2833
16.00	29	1697	669	150	-3	325	2838
17.00	28.7	1622	665	144	-6	325	2749
18.00	28	1555	603	125	-16	325	2592
19.00	26.8	1479	491	94	-30	9	2043
20.00	25.2	1687	334	55	-48	9	2036
21.00	23.3	1593	141	8	-66	9	1685
22.00	21.2	997	-73	-44	-83	9	806
23.00	19.1	540	-283	-97	-97	9	73
24.00	17.1	540	-483	-147	-108	9	-190

Peak room load 4118 W at 11.00 hrs (241.6 W/m² and 27.5 W/m³)

Solar load average 172.5 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.3179 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G10	Edit Suite			No. off	
						1	
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	-8	-51	-31	8	-82
2.00	13.7	0	-8	-62	-32	8	-94
3.00	12.6	0	-8	-69	-33	8	-102
4.00	11.9	0	-8	-74	-33	8	-107
5.00	11.7	0	-8	-75	-34	8	-108
6.00	12.2	0	-8	-72	-33	8	-105
7.00	13.2	0	-8	-65	-33	8	-97
8.00	14.9	0	-8	-54	-31	8	-85
9.00	17	0	-8	-40	-29	276	199
10.00	19.3	0	-8	-24	-25	276	218
11.00	21.7	0	-8	-8	-21	276	239
12.00	24.1	0	-8	7	-16	276	260
13.00	26.1	0	-8	21	-10	276	279
14.00	27.7	0	-8	31	-5	276	294
15.00	28.7	0	-8	38	-2	276	304
16.00	29	0	-8	40	-1	276	307 peak
17.00	28.7	0	-8	38	-2	276	305
18.00	28	0	-8	33	-4	276	297
19.00	26.8	0	-8	25	-8	8	17
20.00	25.2	0	-8	14	-13	8	2
21.00	23.3	0	-8	2	-17	8	-15
22.00	21.2	0	-8	-12	-22	8	-33
23.00	19.1	0	-8	-26	-26	8	-51
24.00	17.1	0	-8	-39	-29	8	-68

Peak room load 307 W at 16.00 hrs (21.5 W/m² and 7.7 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0233 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room

G11

Edit Suite

No. off 1

Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	-8	-51	-31	8	-82
2.00	13.7	0	-8	-62	-32	8	-94
3.00	12.6	0	-8	-69	-33	8	-102
4.00	11.9	0	-8	-74	-33	8	-107
5.00	11.7	0	-8	-75	-33	8	-108
6.00	12.2	0	-8	-72	-33	8	-105
7.00	13.2	0	-8	-65	-33	8	-97
8.00	14.9	0	-8	-54	-31	8	-85
9.00	17	0	-8	-40	-29	276	199
10.00	19.3	0	-8	-24	-25	276	218
11.00	21.7	0	-8	-8	-21	276	239
12.00	24.1	0	-8	7	-16	276	260
13.00	26.1	0	-8	20	-10	276	278
14.00	27.7	0	-8	31	-5	276	294
15.00	28.7	0	-8	38	-2	276	304
16.00	29	0	-8	40	-1	276	307 peak
17.00	28.7	0	-8	38	-2	276	305
18.00	28	0	-8	33	-4	276	297
19.00	26.8	0	-8	25	-8	8	17
20.00	25.2	0	-8	14	-13	8	2
21.00	23.3	0	-8	2	-17	8	-15
22.00	21.2	0	-8	-12	-22	8	-33
23.00	19.1	0	-8	-26	-26	8	-51
24.00	17.1	0	-8	-39	-29	8	-68

Peak room load 307 W at 16.00 hrs (21.5 W/m² and 7.7 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0233 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G12	Edit Suite			No. off 1	
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	-8	-51	-31	8	-82
2.00	13.7	0	-8	-62	-32	8	-94
3.00	12.6	0	-8	-69	-33	8	-102
4.00	11.9	0	-8	-74	-33	8	-107
5.00	11.7	0	-8	-75	-33	8	-108
6.00	12.2	0	-8	-72	-33	8	-105
7.00	13.2	0	-8	-65	-33	8	-97
8.00	14.9	0	-8	-54	-31	8	-85
9.00	17	0	-8	-40	-29	276	199
10.00	19.3	0	-8	-24	-25	276	218
11.00	21.7	0	-8	-8	-21	276	239
12.00	24.1	0	-8	7	-16	276	259
13.00	26.1	0	-8	20	-10	276	278
14.00	27.7	0	-8	31	-5	276	294
15.00	28.7	0	-8	38	-2	276	304
16.00	29	0	-8	40	-1	276	307 peak
17.00	28.7	0	-8	38	-2	276	304
18.00	28	0	-8	33	-4	276	297
19.00	26.8	0	-8	25	-8	8	17
20.00	25.2	0	-8	14	-13	8	2
21.00	23.3	0	-8	2	-17	8	-15
22.00	21.2	0	-8	-12	-22	8	-33
23.00	19.1	0	-8	-26	-26	8	-51
24.00	17.1	0	-8	-39	-29	8	-68

Peak room load 307 W at 16.00 hrs (21.5 W/m² and 7.7 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0233 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G13	Edit Suite			No. off	
						1	
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	63	-52	-31	8	-12
2.00	13.7	0	60	-62	-33	8	-26
3.00	12.6	0	57	-70	-33	8	-38
4.00	11.9	0	53	-75	-34	8	-47
5.00	11.7	0	48	-76	-34	8	-53
6.00	12.2	0	42	-73	-34	8	-56
7.00	13.2	0	37	-65	-33	8	-53
8.00	14.9	0	34	-54	-32	8	-44
9.00	17	0	31	-40	-29	277	238
10.00	19.3	0	28	-25	-26	277	255
11.00	21.7	0	26	-8	-21	277	273
12.00	24.1	0	24	7	-16	277	293
13.00	26.1	0	23	21	-10	277	311
14.00	27.7	0	25	31	-5	277	329
15.00	28.7	0	44	38	-2	277	358
16.00	29	0	66	40	-1	277	383
17.00	28.7	0	81	39	-2	277	395
18.00	28	0	89	33	-4	277	395 peak
19.00	26.8	0	90	25	-8	8	116
20.00	25.2	0	86	15	-13	8	96
21.00	23.3	0	78	2	-18	8	71
22.00	21.2	0	67	-12	-22	8	42
23.00	19.1	0	65	-26	-26	8	21
24.00	17.1	0	64	-40	-29	8	4

Peak room load 395 W at 18.00 hrs (27.4 W/m² and 9.8 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0303 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G14	Secondary Entrance			No. off	
						1	
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	18	-117	-71	19	-151
2.00	13.7	0	17	-141	-74	19	-179
3.00	12.6	0	15	-158	-75	19	-200
4.00	11.9	0	13	-169	-76	19	-213
5.00	11.7	0	10	-171	-77	19	-218
6.00	12.2	0	7	-165	-76	19	-214
7.00	13.2	0	5	-148	-74	19	-198
8.00	14.9	0	4	-123	-71	19	-172
9.00	17	0	2	-91	-66	630	474
10.00	19.3	0	1	-56	-58	630	517
11.00	21.7	0	0	-19	-48	630	563
12.00	24.1	0	-1	16	-36	630	609
13.00	26.1	0	-2	47	-23	630	652
14.00	27.7	0	0	71	-12	630	688
15.00	28.7	0	9	86	-4	630	720
16.00	29	0	20	91	-2	630	739
17.00	28.7	0	28	87	-4	630	741 peak
18.00	28	0	32	76	-10	630	727
19.00	26.8	0	32	57	-18	19	90
20.00	25.2	0	30	33	-29	19	53
21.00	23.3	0	26	5	-40	19	9
22.00	21.2	0	20	-27	-50	19	-37
23.00	19.1	0	19	-59	-59	19	-80
24.00	17.1	0	18	-89	-66	19	-117

Peak room load 741 W at 17.00 hrs (22.7 W/m² and 8.1 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0564 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G15	Edit Suite			No. off	
						1	
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	69	-57	-34	9	-13
2.00	13.7	0	66	-68	-36	9	-29
3.00	12.6	0	62	-77	-37	9	-43
4.00	11.9	0	57	-82	-37	9	-53
5.00	11.7	0	52	-83	-37	9	-60
6.00	12.2	0	46	-80	-37	9	-62
7.00	13.2	0	40	-72	-36	9	-59
8.00	14.9	0	37	-60	-35	9	-48
9.00	17	0	34	-44	-32	305	262
10.00	19.3	0	31	-27	-28	305	280
11.00	21.7	0	29	-9	-23	305	301
12.00	24.1	0	27	8	-17	305	322
13.00	26.1	0	26	23	-11	305	342
14.00	27.7	0	28	34	-6	305	362
15.00	28.7	0	48	42	-2	305	392
16.00	29	0	70	44	-1	305	419
17.00	28.7	0	87	42	-2	305	432
18.00	28	0	96	37	-5	305	433 peak
19.00	26.8	0	97	28	-9	9	126
20.00	25.2	0	94	16	-14	9	105
21.00	23.3	0	85	2	-19	9	77
22.00	21.2	0	74	-13	-24	9	46
23.00	19.1	0	72	-28	-29	9	24
24.00	17.1	0	71	-43	-32	9	5

Peak room load 433 W at 18.00 hrs (27.3 W/m² and 9.8 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0331 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G16	Edit Suite				No. off 1
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	-8	-54	-32	8	-86
2.00	13.7	0	-8	-65	-34	8	-98
3.00	12.6	0	-8	-73	-35	8	-107
4.00	11.9	0	-8	-77	-35	8	-112
5.00	11.7	0	-8	-79	-35	8	-114
6.00	12.2	0	-8	-76	-35	8	-110
7.00	13.2	0	-8	-68	-34	8	-102
8.00	14.9	0	-8	-56	-33	8	-89
9.00	17	0	-8	-42	-30	290	209
10.00	19.3	0	-8	-26	-27	290	229
11.00	21.7	0	-8	-9	-22	290	251
12.00	24.1	0	-8	7	-16	290	273
13.00	26.1	0	-8	22	-11	290	292
14.00	27.7	0	-8	32	-6	290	308
15.00	28.7	0	-8	39	-2	290	319
16.00	29	0	-8	42	-1	290	323 peak
17.00	28.7	0	-8	40	-2	290	320
18.00	28	0	-8	35	-4	290	312
19.00	26.8	0	-8	26	-8	8	18
20.00	25.2	0	-8	15	-13	8	2
21.00	23.3	0	-8	2	-18	8	-16
22.00	21.2	0	-8	-12	-23	8	-35
23.00	19.1	0	-8	-27	-27	8	-54
24.00	17.1	0	-8	-41	-30	8	-71

Peak room load 323 W at 16.00 hrs (21.5 W/m² and 7.7 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0245 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room

G17

Edit Suite

No. off 1

Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	-5	-34	-21	5	-55
2.00	13.7	0	-5	-41	-21	5	-62
3.00	12.6	0	-5	-46	-22	5	-68
4.00	11.9	0	-5	-49	-22	5	-71
5.00	11.7	0	-5	-50	-22	5	-72
6.00	12.2	0	-5	-48	-22	5	-70
7.00	13.2	0	-5	-43	-22	5	-65
8.00	14.9	0	-5	-36	-21	5	-57
9.00	17	0	-5	-27	-19	184	133
10.00	19.3	0	-5	-16	-17	184	145
11.00	21.7	0	-5	-6	-14	184	159
12.00	24.1	0	-5	5	-10	184	173
13.00	26.1	0	-5	14	-7	184	186
14.00	27.7	0	-5	21	-4	184	196
15.00	28.7	0	-5	25	-1	184	203
16.00	29	0	-5	27	0	184	205 peak
17.00	28.7	0	-5	25	-1	184	203
18.00	28	0	-5	22	-3	184	198
19.00	26.8	0	-5	17	-5	5	11
20.00	25.2	0	-5	10	-8	5	1
21.00	23.3	0	-5	1	-12	5	-10
22.00	21.2	0	-5	-8	-15	5	-22
23.00	19.1	0	-5	-17	-17	5	-34
24.00	17.1	0	-5	-26	-19	5	-45

Peak room load 205 W at 16.00 hrs (21.5 W/m² and 7.7 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0156 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G18	Edit Suite				No. off 1
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	-5	-34	-21	5	-55
2.00	13.7	0	-5	-41	-21	5	-62
3.00	12.6	0	-5	-46	-22	5	-68
4.00	11.9	0	-5	-49	-22	5	-71
5.00	11.7	0	-5	-50	-22	5	-72
6.00	12.2	0	-5	-48	-22	5	-70
7.00	13.2	0	-5	-43	-22	5	-65
8.00	14.9	0	-5	-36	-21	5	-57
9.00	17	0	-5	-27	-19	184	133
10.00	19.3	0	-5	-16	-17	184	145
11.00	21.7	0	-5	-6	-14	184	159
12.00	24.1	0	-5	5	-10	184	173
13.00	26.1	0	-5	14	-7	184	186
14.00	27.7	0	-5	21	-4	184	196
15.00	28.7	0	-5	25	-1	184	203
16.00	29	0	-5	27	0	184	205 peak
17.00	28.7	0	-5	25	-1	184	203
18.00	28	0	-5	22	-3	184	198
19.00	26.8	0	-5	17	-5	5	11
20.00	25.2	0	-5	10	-8	5	1
21.00	23.3	0	-5	1	-12	5	-10
22.00	21.2	0	-5	-8	-15	5	-22
23.00	19.1	0	-5	-17	-17	5	-34
24.00	17.1	0	-5	-26	-19	5	-45

Peak room load 205 W at 16.00 hrs (21.5 W/m² and 7.7 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0156 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G19	Store	No. off 1			
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	-3	-19	-11	3	-30
2.00	13.7	0	-3	-23	-12	3	-34
3.00	12.6	0	-3	-25	-12	3	-38
4.00	11.9	0	-3	-27	-12	3	-39
5.00	11.7	0	-3	-27	-12	3	-40
6.00	12.2	0	-3	-26	-12	3	-39
7.00	13.2	0	-3	-24	-12	3	-36
8.00	14.9	0	-3	-20	-11	3	-31
9.00	17	0	-3	-15	-11	101	73
10.00	19.3	0	-3	-9	-9	101	80
11.00	21.7	0	-3	-3	-8	101	87
12.00	24.1	0	-3	3	-6	101	95
13.00	26.1	0	-3	8	-4	101	102
14.00	27.7	0	-3	11	-2	101	108
15.00	28.7	0	-3	14	-1	101	111
16.00	29	0	-3	15	0	101	113 peak
17.00	28.7	0	-3	14	-1	101	112
18.00	28	0	-3	12	-2	101	109
19.00	26.8	0	-3	9	-3	3	6
20.00	25.2	0	-3	5	-5	3	1
21.00	23.3	0	-3	1	-6	3	-6
22.00	21.2	0	-3	-4	-8	3	-12
23.00	19.1	0	-3	-9	-9	3	-19
24.00	17.1	0	-3	-14	-11	3	-25

Peak room load 113 W at 16.00 hrs (21.5 W/m² and 7.7 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0085 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G20	Lift	No. off 1			
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	-3	-18	-11	3	-30
2.00	13.7	0	-3	-22	-12	3	-34
3.00	12.6	0	-3	-25	-12	3	-37
4.00	11.9	0	-3	-26	-12	3	-39
5.00	11.7	0	-3	-27	-12	3	-39
6.00	12.2	0	-3	-26	-12	3	-38
7.00	13.2	0	-3	-23	-12	3	-35
8.00	14.9	0	-3	-19	-11	3	-31
9.00	17	0	-3	-14	-10	99	72
10.00	19.3	0	-3	-9	-9	99	78
11.00	21.7	0	-3	-3	-8	99	86
12.00	24.1	0	-3	3	-6	99	93
13.00	26.1	0	-3	7	-4	99	100
14.00	27.7	0	-3	11	-2	99	105
15.00	28.7	0	-3	13	-1	99	109
16.00	29	0	-3	14	0	99	110 peak
17.00	28.7	0	-3	14	-1	99	109
18.00	28	0	-3	12	-2	99	107
19.00	26.8	0	-3	9	-3	3	6
20.00	25.2	0	-3	5	-5	3	1
21.00	23.3	0	-3	1	-6	3	-6
22.00	21.2	0	-3	-4	-8	3	-12
23.00	19.1	0	-3	-9	-9	3	-19
24.00	17.1	0	-3	-14	-10	3	-24

Peak room load 110 W at 16.00 hrs (21.5 W/m² and 7.7 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0084 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room

G21

Studio 05

No. off 1

Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	2351	-1747	-1691	-1015	92	-2010
2.00	13.7	2351	-2268	-2027	-1061	92	-2912
3.00	12.6	2351	-2683	-2277	-1087	92	-3604
4.00	11.9	2351	-2934	-2427	-1100	92	-4017
5.00	11.7	2351	-3036	-2466	-1103	92	-4161
6.00	12.2	2808	-2956	-2369	-1095	92	-3520
7.00	13.2	5877	-2674	-2131	-1072	92	91
8.00	14.9	9443	-2211	-1771	-1027	92	4526
9.00	17	12026	-1619	-1317	-951	2871	11010
10.00	19.3	14240	-945	-804	-838	2871	14523
11.00	21.7	15806	-243	-274	-689	2871	17470
12.00	24.1	16123	431	232	-513	2871	19144
13.00	26.1	15288	1024	675	-332	2871	19524 peak
14.00	27.7	13495	1502	1018	-173	2871	18712
15.00	28.7	12539	1890	1236	-63	2871	18472
16.00	29	11440	2104	1310	-24	2871	17700
17.00	28.7	9745	2120	1254	-54	2871	15936
18.00	28	7628	1985	1089	-138	2871	13434
19.00	26.8	5392	1701	824	-265	92	7745
20.00	25.2	4469	1273	477	-417	92	5894
21.00	23.3	3685	726	66	-574	92	3994
22.00	21.2	2865	96	-383	-722	92	1949
23.00	19.1	2351	-535	-843	-848	92	217
24.00	17.1	2351	-1157	-1288	-945	92	-948

Peak room load 19524 W at 13.00 hrs (131.2 W/m² and 14.9 W/m³)

Solar load average 87.4 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 1.5043 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G22	Reception	No. off 1			
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	112	-246	-148	41	-240
2.00	13.7	0	95	-295	-154	41	-313
3.00	12.6	0	74	-331	-158	41	-374
4.00	11.9	0	62	-353	-160	41	-409
5.00	11.7	0	51	-359	-160	41	-426
6.00	12.2	0	40	-345	-159	41	-423
7.00	13.2	0	31	-310	-156	41	-393
8.00	14.9	0	26	-258	-149	41	-340
9.00	17	0	21	-192	-138	1316	1008
10.00	19.3	0	17	-117	-122	1316	1094
11.00	21.7	0	13	-40	-100	1316	1189
12.00	24.1	0	10	34	-75	1316	1286
13.00	26.1	0	9	98	-48	1316	1375
14.00	27.7	0	9	148	-25	1316	1449
15.00	28.7	0	15	180	-9	1316	1502
16.00	29	0	24	191	-3	1316	1527 peak
17.00	28.7	0	34	182	-8	1316	1525
18.00	28	0	54	158	-20	1316	1509
19.00	26.8	0	79	120	-39	41	202
20.00	25.2	0	101	69	-61	41	151
21.00	23.3	0	116	10	-84	41	84
22.00	21.2	0	125	-56	-105	41	6
23.00	19.1	0	128	-123	-123	41	-76
24.00	17.1	0	124	-187	-138	41	-160

Peak room load 1527 W at 16.00 hrs (22.4 W/m² and 8 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.1162 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G23	Storage	No. off 1			
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	-7	-50	-30	8	-81
2.00	13.7	0	-7	-60	-32	8	-92
3.00	12.6	0	-7	-68	-32	8	-100
4.00	11.9	0	-7	-72	-33	8	-105
5.00	11.7	0	-7	-73	-33	8	-106
6.00	12.2	0	-7	-71	-33	8	-103
7.00	13.2	0	-7	-63	-32	8	-95
8.00	14.9	0	-7	-53	-31	8	-83
9.00	17	0	-7	-39	-28	270	195
10.00	19.3	0	-7	-24	-25	270	214
11.00	21.7	0	-7	-8	-21	270	234
12.00	24.1	0	-7	7	-15	270	254
13.00	26.1	0	-7	20	-10	270	273
14.00	27.7	0	-7	30	-5	270	288
15.00	28.7	0	-7	37	-2	270	298
16.00	29	0	-7	39	-1	270	301 peak
17.00	28.7	0	-7	37	-2	270	299
18.00	28	0	-7	32	-4	270	291
19.00	26.8	0	-7	25	-8	8	17
20.00	25.2	0	-7	14	-12	8	2
21.00	23.3	0	-7	2	-17	8	-15
22.00	21.2	0	-7	-11	-21	8	-33
23.00	19.1	0	-7	-25	-25	8	-50
24.00	17.1	0	-7	-38	-28	8	-66

Peak room load 301 W at 16.00 hrs (21.5 W/m² and 7.7 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0229 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G24	Office	No. off 1			
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	-5	-33	-20	5	-53
2.00	13.7	0	-5	-40	-21	5	-61
3.00	12.6	0	-5	-45	-21	5	-66
4.00	11.9	0	-5	-48	-22	5	-69
5.00	11.7	0	-5	-49	-22	5	-70
6.00	12.2	0	-5	-47	-22	5	-68
7.00	13.2	0	-5	-42	-21	5	-63
8.00	14.9	0	-5	-35	-20	5	-55
9.00	17	0	-5	-26	-19	179	129
10.00	19.3	0	-5	-16	-17	179	142
11.00	21.7	0	-5	-5	-14	179	155
12.00	24.1	0	-5	5	-10	179	168
13.00	26.1	0	-5	13	-7	179	181
14.00	27.7	0	-5	20	-3	179	191
15.00	28.7	0	-5	24	-1	179	197
16.00	29	0	-5	26	0	179	199 peak
17.00	28.7	0	-5	25	-1	179	198
18.00	28	0	-5	21	-3	179	193
19.00	26.8	0	-5	16	-5	5	11
20.00	25.2	0	-5	9	-8	5	1
21.00	23.3	0	-5	1	-11	5	-10
22.00	21.2	0	-5	-8	-14	5	-22
23.00	19.1	0	-5	-17	-17	5	-33
24.00	17.1	0	-5	-25	-19	5	-44

Peak room load 199 W at 16.00 hrs (21.5 W/m² and 7.7 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0151 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G25	Breakout	No. off 1			
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	68	-152	-91	25	-150
2.00	13.7	0	57	-182	-95	25	-196
3.00	12.6	0	44	-204	-97	25	-233
4.00	11.9	0	37	-218	-99	25	-255
5.00	11.7	0	31	-221	-99	25	-265
6.00	12.2	0	24	-212	-98	25	-262
7.00	13.2	0	19	-191	-96	25	-243
8.00	14.9	0	16	-159	-92	25	-210
9.00	17	0	13	-118	-85	812	622
10.00	19.3	0	10	-72	-75	812	675
11.00	21.7	0	8	-25	-62	812	734
12.00	24.1	0	7	21	-46	812	793
13.00	26.1	0	5	60	-30	812	848
14.00	27.7	0	6	91	-16	812	894
15.00	28.7	0	11	111	-6	812	928
16.00	29	0	17	117	-2	812	945 peak
17.00	28.7	0	25	112	-5	812	944
18.00	28	0	37	98	-12	812	934
19.00	26.8	0	52	74	-24	25	127
20.00	25.2	0	64	43	-37	25	94
21.00	23.3	0	73	6	-52	25	52
22.00	21.2	0	77	-34	-65	25	3
23.00	19.1	0	78	-76	-76	25	-49
24.00	17.1	0	75	-116	-85	25	-101

Peak room load 945 W at 16.00 hrs (22.4 W/m² and 8 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0719 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G26	Studio 04			No. off 1	
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	2335	-1588	-1670	-1003	91	-1835
2.00	13.7	2335	-2077	-2002	-1048	91	-2700
3.00	12.6	2335	-2485	-2249	-1074	91	-3383
4.00	11.9	2335	-2762	-2397	-1086	91	-3819
5.00	11.7	2335	-2919	-2435	-1089	91	-4018
6.00	12.2	2485	-2912	-2340	-1082	91	-3758
7.00	13.2	3270	-2664	-2105	-1059	91	-2468
8.00	14.9	4056	-2204	-1749	-1015	91	-821
9.00	17	4822	-1616	-1301	-939	2835	3801
10.00	19.3	6450	-946	-794	-828	2835	6716
11.00	21.7	8627	-249	-271	-680	2835	10262
12.00	24.1	10522	420	229	-507	2835	13500
13.00	26.1	11903	1009	666	-328	2835	16085
14.00	27.7	12662	1476	1006	-171	2835	17808
15.00	28.7	14353	1801	1220	-62	2835	20147
16.00	29	15732	1943	1294	-24	2835	21780
17.00	28.7	16056	1916	1238	-53	2835	21992 peak
18.00	28	15160	1770	1075	-136	2835	20705
19.00	26.8	13030	1506	814	-262	91	15180
20.00	25.2	10903	1119	471	-412	91	12173
21.00	23.3	7736	631	65	-567	91	7956
22.00	21.2	4032	70	-378	-713	91	3101
23.00	19.1	2335	-492	-833	-837	91	264
24.00	17.1	2335	-1050	-1272	-934	91	-830

Peak room load 21992 W at 17.00 hrs (149.6 W/m² and 17 W/m³)

Solar load average 71.5 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 1.6701 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G27	Studio 01			No. off 1	
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	-84	-558	-335	98	-879
2.00	13.7	0	-84	-669	-350	98	-1005
3.00	12.6	0	-84	-751	-359	98	-1096
4.00	11.9	0	-84	-801	-363	98	-1149
5.00	11.7	0	-84	-813	-364	98	-1163
6.00	12.2	0	-84	-782	-361	98	-1129
7.00	13.2	0	-84	-703	-354	98	-1043
8.00	14.9	0	-84	-584	-339	98	-909
9.00	17	0	-84	-434	-314	2995	2163
10.00	19.3	0	-84	-265	-276	2995	2370
11.00	21.7	0	-84	-90	-227	2995	2594
12.00	24.1	0	-84	77	-169	2995	2819
13.00	26.1	0	-84	223	-110	2995	3024
14.00	27.7	0	-84	336	-57	2995	3190
15.00	28.7	0	-84	408	-21	2995	3298
16.00	29	0	-84	432	-8	2995	3336 peak
17.00	28.7	0	-84	414	-18	2995	3307
18.00	28	0	-84	359	-46	2995	3225
19.00	26.8	0	-84	272	-87	98	199
20.00	25.2	0	-84	157	-137	98	34
21.00	23.3	0	-84	22	-190	98	-154
22.00	21.2	0	-84	-126	-238	98	-350
23.00	19.1	0	-84	-278	-280	98	-544
24.00	17.1	0	-84	-425	-312	98	-723

Peak room load 3336 W at 16.00 hrs (21.5 W/m² and 7.7 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.2533 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G28	Lounge (01)			No. off 1	
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	-56	-374	-225	60	-595
2.00	13.7	0	-56	-448	-235	60	-679
3.00	12.6	0	-56	-504	-241	60	-741
4.00	11.9	0	-56	-537	-243	60	-776
5.00	11.7	0	-56	-546	-244	60	-786
6.00	12.2	0	-56	-524	-242	60	-763
7.00	13.2	0	-56	-472	-237	60	-705
8.00	14.9	0	-56	-392	-227	60	-615
9.00	17	0	-56	-291	-210	2008	1450
10.00	19.3	0	-56	-178	-185	2008	1589
11.00	21.7	0	-56	-61	-152	2008	1739
12.00	24.1	0	-56	51	-114	2008	1890
13.00	26.1	0	-56	149	-74	2008	2028
14.00	27.7	0	-56	225	-38	2008	2139
15.00	28.7	0	-56	273	-14	2008	2211
16.00	29	0	-56	290	-5	2008	2236 peak
17.00	28.7	0	-56	277	-12	2008	2217
18.00	28	0	-56	241	-31	2008	2162
19.00	26.8	0	-56	182	-59	60	128
20.00	25.2	0	-56	105	-92	60	17
21.00	23.3	0	-56	15	-127	60	-109
22.00	21.2	0	-56	-85	-160	60	-241
23.00	19.1	0	-56	-187	-188	60	-370
24.00	17.1	0	-56	-285	-209	60	-490

Peak room load 2236 W at 16.00 hrs (21.5 W/m² and 7.7 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.1698 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		G29	Lounge (02)			No. off 1	
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	145	-959	-576	162	-1228
2.00	13.7	0	156	-1150	-602	162	-1435
3.00	12.6	0	148	-1292	-617	162	-1600
4.00	11.9	0	120	-1377	-624	162	-1720
5.00	11.7	0	70	-1399	-626	162	-1793
6.00	12.2	0	7	-1344	-621	162	-1796
7.00	13.2	0	-26	-1209	-608	162	-1682
8.00	14.9	0	-35	-1005	-583	162	-1461
9.00	17	0	-43	-747	-540	5141	3811
10.00	19.3	0	-50	-456	-475	5141	4159
11.00	21.7	0	-56	-155	-391	5141	4538
12.00	24.1	0	-61	132	-291	5141	4920
13.00	26.1	0	-64	383	-189	5141	5271
14.00	27.7	0	-63	578	-98	5141	5558
15.00	28.7	0	-52	701	-36	5141	5754
16.00	29	0	-40	743	-14	5141	5831 peak
17.00	28.7	0	-27	711	-30	5141	5795
18.00	28	0	-12	618	-78	5141	5668
19.00	26.8	0	4	468	-150	162	483
20.00	25.2	0	20	270	-236	162	216
21.00	23.3	0	35	38	-326	162	-92
22.00	21.2	0	48	-217	-410	162	-417
23.00	19.1	0	83	-478	-481	162	-714
24.00	17.1	0	120	-731	-536	162	-986

Peak room load 5831 W at 16.00 hrs (21.9 W/m² and 7.8 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.4427 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		M00	Workspace 01				No. off 1
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	956	-1334	-2289	-1375	86	-3956
2.00	13.7	956	-1883	-2745	-1436	86	-5021
3.00	12.6	956	-2365	-3084	-1472	86	-5878
4.00	11.9	956	-2732	-3286	-1489	86	-6465
5.00	11.7	956	-3020	-3339	-1493	86	-6809
6.00	12.2	1563	-3188	-3208	-1483	86	-6229
7.00	13.2	4690	-3066	-2886	-1452	86	-2628
8.00	14.9	5957	-2619	-2398	-1391	86	-364
9.00	17	4872	-1811	-1783	-1288	3519	3510
10.00	19.3	4182	-924	-1089	-1135	3519	4555
11.00	21.7	4231	3	-371	-932	3519	6449
12.00	24.1	4269	972	315	-695	3519	8380
13.00	26.1	4287	1901	913	-450	3519	10171
14.00	27.7	4279	2692	1378	-234	3519	11635
15.00	28.7	4286	3414	1673	-86	3519	12806
16.00	29	4286	3856	1774	-32	3519	13403 peak
17.00	28.7	4257	3959	1698	-73	3519	13360
18.00	28	4221	3786	1474	-187	3519	12814
19.00	26.8	4142	3358	1116	-359	86	8344
20.00	25.2	5736	2699	645	-564	86	8603
21.00	23.3	5721	1863	90	-778	86	6982
22.00	21.2	3052	1019	-518	-978	86	2661
23.00	19.1	956	225	-1142	-1148	86	-1022
24.00	17.1	956	-626	-1744	-1280	86	-2607

Peak room load 13403 W at 16.00 hrs (74.3 W/m² and 7.6 W/m³)

Solar load average 24.9 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 1.0179 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		M01	Small Office				No. off 1
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	33	-106	-64	4	-132
2.00	13.7	0	28	-127	-67	4	-161
3.00	12.6	0	22	-143	-68	4	-185
4.00	11.9	0	21	-152	-69	4	-196
5.00	11.7	0	15	-155	-69	4	-205
6.00	12.2	0	-2	-149	-69	4	-215
7.00	13.2	0	-16	-134	-67	4	-213
8.00	14.9	0	-19	-111	-64	4	-191
9.00	17	0	-15	-83	-60	166	9
10.00	19.3	0	-8	-50	-53	166	55
11.00	21.7	0	-1	-17	-43	166	105
12.00	24.1	0	7	15	-32	166	155
13.00	26.1	0	14	42	-21	166	202
14.00	27.7	0	24	64	-11	166	244
15.00	28.7	0	45	78	-4	166	285
16.00	29	0	57	82	-2	166	304 peak
17.00	28.7	0	59	79	-3	166	301
18.00	28	0	61	68	-9	166	287
19.00	26.8	0	64	52	-17	4	103
20.00	25.2	0	65	30	-26	4	73
21.00	23.3	0	63	4	-36	4	36
22.00	21.2	0	58	-24	-45	4	-7
23.00	19.1	0	51	-53	-53	4	-51
24.00	17.1	0	40	-81	-59	4	-95

Peak room load 304 W at 16.00 hrs (35.5 W/m² and 3.7 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0232 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		M02	Small Office				No. off	1
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)	
1.00	15.3	402	-351	-106	-64	4	-114	
2.00	13.7	402	-445	-127	-66	4	-232	
3.00	12.6	402	-520	-142	-68	4	-324	
4.00	11.9	402	-563	-152	-69	4	-378	
5.00	11.7	402	-585	-154	-69	4	-402	
6.00	12.2	557	-583	-148	-69	4	-239	
7.00	13.2	1638	-540	-133	-67	4	901	
8.00	14.9	2905	-454	-111	-64	4	2280	
9.00	17	3746	-336	-82	-60	164	3433	
10.00	19.3	4053	-200	-50	-52	164	3915 peak	
11.00	21.7	3855	-58	-17	-43	164	3901	
12.00	24.1	3268	78	15	-32	164	3493	
13.00	26.1	2437	199	42	-21	164	2821	
14.00	27.7	1489	300	64	-11	164	2006	
15.00	28.7	1164	397	77	-4	164	1798	
16.00	29	1066	452	82	-1	164	1762	
17.00	28.7	984	456	78	-3	164	1679	
18.00	28	912	424	68	-9	164	1560	
19.00	26.8	839	360	52	-17	4	1239	
20.00	25.2	754	266	30	-26	4	1028	
21.00	23.3	642	149	4	-36	4	764	
22.00	21.2	499	17	-24	-45	4	451	
23.00	19.1	402	-113	-53	-53	4	188	
24.00	17.1	402	-238	-81	-59	4	29	

Peak room load 3915 W at 10.00 hrs (457.6 W/m² and 47.8 W/m³)

Solar load average 291.8 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.3006 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		M03	Breakout Space				No. off 1
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	425	-362	-660	-396	24	-969
2.00	13.7	425	-480	-791	-414	24	-1236
3.00	12.6	425	-578	-889	-424	24	-1442
4.00	11.9	425	-636	-947	-429	24	-1564
5.00	11.7	425	-675	-962	-430	24	-1619
6.00	12.2	590	-693	-925	-427	24	-1432
7.00	13.2	1741	-663	-832	-419	24	-149
8.00	14.9	3091	-571	-691	-401	24	1451
9.00	17	3988	-409	-514	-371	953	3647
10.00	19.3	4317	-219	-314	-327	953	4410
11.00	21.7	4107	-22	-107	-269	953	4663 peak
12.00	24.1	3482	168	91	-200	953	4494
13.00	26.1	2597	337	263	-130	953	4020
14.00	27.7	1587	482	397	-68	953	3352
15.00	28.7	1237	627	482	-25	953	3275
16.00	29	1133	715	511	-9	953	3303
17.00	28.7	1045	731	489	-21	953	3198
18.00	28	968	698	425	-54	953	2991
19.00	26.8	891	622	322	-103	24	1755
20.00	25.2	800	503	186	-163	24	1349
21.00	23.3	681	348	26	-224	24	853
22.00	21.2	528	166	-149	-282	24	286
23.00	19.1	425	-20	-329	-331	24	-231
24.00	17.1	425	-209	-503	-369	24	-631

Peak room load 4663 W at 11.00 hrs (95.3 W/m² and 9.1 W/m³)

Solar load average 54.3 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.3736 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		M04	Plant			No. off		1
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)	
1.00	15.3	1125	-788	-671	-403	24	-712	
2.00	13.7	1125	-1098	-804	-421	24	-1174	
3.00	12.6	1125	-1354	-903	-431	24	-1539	
4.00	11.9	1125	-1516	-963	-436	24	-1765	
5.00	11.7	1125	-1595	-978	-437	24	-1862	
6.00	12.2	1558	-1575	-940	-434	24	-1367	
7.00	13.2	4594	-1441	-845	-425	24	1906	
8.00	14.9	8153	-1198	-702	-407	24	5868	
9.00	17	10518	-863	-522	-377	966	9721	
10.00	19.3	11383	-459	-319	-332	966	11239	
11.00	21.7	10831	-8	-109	-273	966	11407 peak	
12.00	24.1	9184	436	92	-204	966	10474	
13.00	26.1	6850	833	268	-132	966	8785	
14.00	27.7	4188	1161	404	-69	966	6651	
15.00	28.7	3266	1447	490	-25	966	6144	
16.00	29	2990	1624	520	-9	966	6090	
17.00	28.7	2759	1666	497	-21	966	5867	
18.00	28	2556	1599	432	-55	966	5499	
19.00	26.8	2353	1425	327	-105	24	4024	
20.00	25.2	2112	1144	189	-165	24	3304	
21.00	23.3	1799	778	26	-228	24	2399	
22.00	21.2	1397	356	-152	-286	24	1338	
23.00	19.1	1125	-55	-334	-336	24	423	
24.00	17.1	1125	-432	-511	-375	24	-169	

Peak room load 11407 W at 11.00 hrs (228.3 W/m² and 22 W/m³)

Solar load average 140.3 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.8849 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		M05	Unisex WC's				No. off 1
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	-15	-370	-222	12	-595
2.00	13.7	0	-26	-443	-232	12	-688
3.00	12.6	0	-36	-498	-238	12	-759
4.00	11.9	0	-45	-531	-240	12	-803
5.00	11.7	0	-52	-539	-241	12	-820
6.00	12.2	0	-57	-518	-239	12	-802
7.00	13.2	0	-61	-466	-234	12	-749
8.00	14.9	0	-59	-387	-225	12	-659
9.00	17	0	-45	-288	-208	510	-31
10.00	19.3	0	-17	-176	-183	510	134
11.00	21.7	0	25	-60	-151	510	325
12.00	24.1	0	71	51	-112	510	520
13.00	26.1	0	115	147	-73	510	700
14.00	27.7	0	152	223	-38	510	847
15.00	28.7	0	179	270	-14	510	946
16.00	29	0	196	286	-5	510	987 peak
17.00	28.7	0	200	274	-12	510	973
18.00	28	0	193	238	-30	510	910
19.00	26.8	0	173	180	-58	12	307
20.00	25.2	0	142	104	-91	12	168
21.00	23.3	0	104	14	-126	12	6
22.00	21.2	0	63	-84	-158	12	-166
23.00	19.1	0	25	-184	-185	12	-332
24.00	17.1	0	2	-282	-207	12	-474

Peak room load 987 W at 16.00 hrs (37.9 W/m² and 3.4 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0752 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		M06	Acc WC	No. off 1			
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	-2	-51	-31	2	-83
2.00	13.7	0	-4	-62	-32	2	-96
3.00	12.6	0	-5	-69	-33	2	-105
4.00	11.9	0	-7	-74	-33	2	-112
5.00	11.7	0	-8	-75	-33	2	-114
6.00	12.2	0	-8	-72	-33	2	-112
7.00	13.2	0	-9	-65	-33	2	-104
8.00	14.9	0	-9	-54	-31	2	-92
9.00	17	0	-7	-40	-29	76	0
10.00	19.3	0	-3	-24	-25	76	23
11.00	21.7	0	4	-8	-21	76	51
12.00	24.1	0	11	7	-16	76	78
13.00	26.1	0	18	20	-10	76	104
14.00	27.7	0	23	31	-5	76	125
15.00	28.7	0	28	38	-2	76	139
16.00	29	0	30	40	-1	76	145 peak
17.00	28.7	0	31	38	-2	76	143
18.00	28	0	30	33	-4	76	135
19.00	26.8	0	26	25	-8	2	45
20.00	25.2	0	22	14	-13	2	25
21.00	23.3	0	16	2	-17	2	2
22.00	21.2	0	9	-12	-22	2	-23
23.00	19.1	0	3	-26	-26	2	-46
24.00	17.1	0	0	-39	-29	2	-66

Peak room load 145 W at 16.00 hrs (37.1 W/m² and 3.7 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0111 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		M07	Lift	No. off 1			
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	140	-85	-51	4	8
2.00	13.7	0	118	-102	-53	4	-33
3.00	12.6	0	94	-114	-55	4	-71
4.00	11.9	0	81	-122	-55	4	-92
5.00	11.7	0	69	-124	-55	4	-107
6.00	12.2	0	58	-119	-55	4	-113
7.00	13.2	0	49	-107	-54	4	-108
8.00	14.9	0	44	-89	-52	4	-93
9.00	17	0	43	-66	-48	136	65
10.00	19.3	0	45	-40	-42	136	99
11.00	21.7	0	53	-14	-35	136	141
12.00	24.1	0	63	12	-26	136	186
13.00	26.1	0	74	34	-17	136	227
14.00	27.7	0	84	51	-9	136	263
15.00	28.7	0	98	62	-3	136	293
16.00	29	0	111	66	-1	136	312
17.00	28.7	0	122	63	-3	136	319
18.00	28	0	140	55	-7	136	324 peak
19.00	26.8	0	160	41	-13	4	191
20.00	25.2	0	173	24	-21	4	180
21.00	23.3	0	178	3	-29	4	157
22.00	21.2	0	176	-19	-36	4	124
23.00	19.1	0	168	-42	-43	4	87
24.00	17.1	0	157	-65	-47	4	49

Peak room load 324 W at 18.00 hrs (46 W/m² and 4.9 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.0251 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room

M08

Workspace 03

No. off 1

Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	1929	-1010	-2285	-1372	86	-2652
2.00	13.7	1929	-1615	-2740	-1434	86	-3773
3.00	12.6	1929	-2159	-3078	-1469	86	-4691
4.00	11.9	1929	-2576	-3280	-1487	86	-5327
5.00	11.7	1929	-2880	-3333	-1491	86	-5688
6.00	12.2	2076	-3016	-3202	-1480	86	-5537
7.00	13.2	2863	-2865	-2881	-1449	86	-4246
8.00	14.9	3740	-2424	-2394	-1388	86	-2380
9.00	17	4710	-1666	-1780	-1285	3513	3493
10.00	19.3	7341	-782	-1087	-1133	3513	7853
11.00	21.7	11039	186	-370	-931	3513	13437
12.00	24.1	14196	1220	314	-694	3513	18549
13.00	26.1	16344	2207	912	-449	3513	22526
14.00	27.7	17277	3038	1376	-234	3513	24970
15.00	28.7	16971	3748	1670	-85	3513	25817 peak
16.00	29	15427	4197	1771	-32	3513	24875
17.00	28.7	12737	4330	1695	-72	3513	22202
18.00	28	9237	4191	1472	-187	3513	18225
19.00	26.8	5521	3782	1114	-358	86	10145
20.00	25.2	4211	3120	644	-563	86	7498
21.00	23.3	3285	2260	89	-777	86	4943
22.00	21.2	2432	1372	-517	-976	86	2397
23.00	19.1	1929	553	-1140	-1146	86	282
24.00	17.1	1929	-279	-1741	-1278	86	-1282

Peak room load **25817 W** at **15.00 hrs** (143.3 W/m² and 14.6 W/m³)

Solar load average 66.5 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 1.9623 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room

M09

Workspace 02

No. off 1

Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	2061	-1196	-2108	-1266	79	-2430
2.00	13.7	2061	-1737	-2528	-1323	79	-3448
3.00	12.6	2061	-2220	-2840	-1356	79	-4276
4.00	11.9	2061	-2559	-3026	-1372	79	-4817
5.00	11.7	2061	-2816	-3075	-1375	79	-5127
6.00	12.2	2206	-2955	-2954	-1366	79	-4990
7.00	13.2	2946	-2813	-2658	-1337	79	-3783
8.00	14.9	3588	-2379	-2209	-1281	79	-2202
9.00	17	4083	-1717	-1642	-1186	3067	2604
10.00	19.3	4476	-912	-1003	-1045	3067	4583
11.00	21.7	4835	-24	-342	-859	3067	6678
12.00	24.1	5221	851	290	-640	3067	8788
13.00	26.1	5679	1636	841	-415	3067	10808
14.00	27.7	6214	2286	1270	-216	3067	12620
15.00	28.7	10063	2811	1541	-79	3067	17402
16.00	29	14655	3083	1634	-30	3067	22408
17.00	28.7	18347	3101	1564	-67	3067	26012
18.00	28	20422	2957	1358	-172	3067	27632 peak
19.00	26.8	20181	2655	1028	-330	79	23613
20.00	25.2	17225	2178	594	-520	79	19557
21.00	23.3	11712	1555	83	-716	79	12711
22.00	21.2	5007	827	-477	-900	79	4535
23.00	19.1	2061	109	-1052	-1057	79	141
24.00	17.1	2061	-572	-1606	-1179	79	-1217

Peak room load **27632 W** at **18.00 hrs** (175.6 W/m² and 16.9 W/m³)

Solar load average 49 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 2.1064 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		M10	Corridor	No. off 1			
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	141	-609	-366	23	-810
2.00	13.7	0	103	-730	-382	23	-985
3.00	12.6	0	63	-820	-391	23	-1126
4.00	11.9	0	39	-874	-396	23	-1208
5.00	11.7	0	12	-888	-397	23	-1250
6.00	12.2	0	-24	-853	-394	23	-1248
7.00	13.2	0	-51	-767	-386	23	-1182
8.00	14.9	0	-57	-638	-370	23	-1041
9.00	17	0	-31	-474	-342	939	91
10.00	19.3	0	15	-290	-302	939	362
11.00	21.7	0	78	-99	-248	939	670
12.00	24.1	0	145	84	-185	939	983
13.00	26.1	0	210	243	-120	939	1272
14.00	27.7	0	270	367	-62	939	1513
15.00	28.7	0	335	445	-23	939	1696
16.00	29	0	379	472	-9	939	1781 peak
17.00	28.7	0	398	452	-19	939	1769
18.00	28	0	409	392	-50	939	1690
19.00	26.8	0	411	297	-95	23	635
20.00	25.2	0	393	172	-150	23	438
21.00	23.3	0	356	24	-207	23	196
22.00	21.2	0	304	-138	-260	23	-71
23.00	19.1	0	244	-304	-305	23	-342
24.00	17.1	0	188	-464	-340	23	-593

Peak room load 1781 W at 16.00 hrs (36.9 W/m² and 3.8 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.1356 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		M11	Corridor	No. off 1			
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	136	-670	-402	26	-910
2.00	13.7	0	97	-803	-420	26	-1100
3.00	12.6	0	54	-902	-431	26	-1253
4.00	11.9	0	29	-961	-436	26	-1342
5.00	11.7	0	0	-977	-437	26	-1387
6.00	12.2	0	-36	-938	-434	26	-1382
7.00	13.2	0	-63	-844	-425	26	-1307
8.00	14.9	0	-69	-701	-407	26	-1151
9.00	17	0	-38	-522	-377	1038	101
10.00	19.3	0	13	-319	-332	1038	401
11.00	21.7	0	84	-109	-273	1038	740
12.00	24.1	0	158	92	-203	1038	1085
13.00	26.1	0	230	267	-132	1038	1403
14.00	27.7	0	295	403	-69	1038	1668
15.00	28.7	0	364	489	-25	1038	1867
16.00	29	0	410	519	-9	1038	1958 peak
17.00	28.7	0	430	497	-21	1038	1944
18.00	28	0	441	431	-55	1038	1855
19.00	26.8	0	440	327	-105	26	687
20.00	25.2	0	417	189	-165	26	467
21.00	23.3	0	375	26	-228	26	199
22.00	21.2	0	316	-152	-286	26	-96
23.00	19.1	0	249	-334	-336	26	-395
24.00	17.1	0	187	-510	-374	26	-672

Peak room load 1958 W at 16.00 hrs (36.7 W/m² and 3.8 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.149 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Results for room		M12	Void	No. off 1			
Sun time	Outside temp	Solar load (W)	Fabric load (W)	Convective load (W)	Latent load (W)	Casual load (W)	Total load (W)
1.00	15.3	0	-147	-3060	-1838	107	-4938
2.00	13.7	0	-238	-3669	-1920	107	-5720
3.00	12.6	0	-325	-4122	-1968	107	-6308
4.00	11.9	0	-404	-4392	-1991	107	-6680
5.00	11.7	0	-469	-4463	-1996	107	-6821
6.00	12.2	0	-518	-4288	-1982	107	-6681
7.00	13.2	0	-547	-3858	-1941	107	-6239
8.00	14.9	0	-531	-3206	-1859	107	-5490
9.00	17	0	-365	-2383	-1721	4405	-64
10.00	19.3	0	-106	-1456	-1517	4405	1327
11.00	21.7	0	231	-496	-1246	4405	2894
12.00	24.1	0	581	420	-929	4405	4477
13.00	26.1	0	907	1221	-602	4405	5931
14.00	27.7	0	1183	1843	-313	4405	7118
15.00	28.7	0	1393	2236	-114	4405	7920
16.00	29	0	1524	2371	-43	4405	8257 peak
17.00	28.7	0	1570	2270	-97	4405	8147
18.00	28	0	1526	1971	-250	4405	7651
19.00	26.8	0	1392	1492	-480	107	2512
20.00	25.2	0	1179	863	-754	107	1395
21.00	23.3	0	904	120	-1040	107	90
22.00	21.2	0	590	-693	-1307	107	-1303
23.00	19.1	0	275	-1526	-1534	107	-2679
24.00	17.1	0	23	-2331	-1711	107	-3913

Peak room load 8257 W at 16.00 hrs (37.2 W/m² and 3.5 W/m³)

Solar load average 0 W/m² (7.30 to 17.30 hrs)

Supply air flow rate 0.6288 m³/s Room design temperature 23 °C

Project Hevacomp Upper

Design basis

Location Manchester Design day 15 July No external shading is considered
 Resultant room design temperatures used, no room heat losses are added to project totals
 Supply air temp 12 °C Central plant fresh air 12 l/s/person
 No fixed temperature air is included
 Fins are considered
 Outside 29 dry bulb/19.1 wet bulb, Room temperatures not allowed to rise
 Rooms included : All rooms selected

Project total results

* Sensible fresh air load excluded

Sun time	Outside temp	Building loads		Fresh air loads		Plant total loads		
(hrs)	(°C)	Sensible (kW)	Latent (kW)	Sensible (kW)	Latent (kW)	Sensible (kW)	Latent (kW)	Total (kW)
1.00	15.3	0.1	0	0	0	0.1	0	0.1
2.00	13.7	0.03	0	0	0	0.03	0	0.03
3.00	12.6	0	0	0	0	0	0	0
4.00	11.9	0	0	0	0	0	0	0
5.00	11.7	0	0	0	0	0	0	0
6.00	12.2	0	0	0	0	0	0	0
7.00	13.2	6.6	0	0	0	6.6	0	6.6
8.00	14.9	24.91	0	0	0	24.91	0	24.91
9.00	17	83	0	0	0	83	0	83
10.00	19.3	104.31	0	0	0	104.31	0	104.31
11.00	21.7	125.13	0	0	0	125.13	0	125.13
12.00	24.1	140.7	0	0	0	140.7	0	140.7
13.00	26.1	150.37	0	0	0	150.37	0	150.37
14.00	27.7	154.05	0	0	0	154.05	0	154.05
15.00	28.7	165.29	0	0	0	165.29	0	165.29
16.00	29	173.69	0	0	0	173.69	0	173.69
17.00	28.7	174.06	0	0	0	174.06	0	174.06 peak
18.00	28	166.55	0	0	0	166.55	0	166.55
19.00	26.8	102.66	0	0	0	102.66	0	102.66
20.00	25.2	87.61	0	0	0	87.61	0	87.61
21.00	23.3	62.62	0	0	0	62.62	0	62.62
22.00	21.2	28.8	0	0	0	28.8	0	28.8
23.00	19.1	6.66	0	0	0	6.66	0	6.66
24.00	17.1	0.56	0	0	0	0.56	0	0.56

Peak coincident plant load 174.06 kW at 17.00 hrs (67.8 W/m² and 9.6 W/m³)
 Supply air flow rate 14.9254m³/s Fresh air flow rate 0 m³/s (Total 0 occupants)