

REPORT- LS-C Building Peak Load Components

DESIGN DAY WEATHER FILE- SEATTLE BOEING FI WA

*** BUILDING ***

FLOOR AREA	171490	SQFT	15931	M2
VOLUME	1767951	CUFT	50068	M3

TIME	COOLING LOAD		HEATING LOAD	
	JUN 21	7PM	DEC 21	4AM
DRY-BULB TEMP	83 F	28 C	24 F	-4 C
WET-BULB TEMP	64 F	18 C	20 F	-7 C
TOT HORIZONTAL SOLAR RAD	112 BTU/H.SQFT	352 W/M2	0 BTU/H.SQFT	0 W/M2
WINDSPEED AT SPACE	4.3 KTS	2.2 M/S	8.7 KTS	4.5 M/S
CLOUD AMOUNT 0(CLEAR)-10	0		10	

	SENSIBLE		LATENT		SENSIBLE			
	(KBTU/H)	(KW)	(KBTU/H)	(KW)	(KBTU/H)	(KW)		
WALL CONDUCTION	85.935	25.179	0.000	0.000	-186.816	-54.737		
ROOF CONDUCTION	18.397	5.390	0.000	0.000	-19.088	-5.593		
WINDOW GLASS+FRM COND	43.929	12.871	0.000	0.000	-227.923	-66.781		
WINDOW GLASS SOLAR	354.333	103.820	0.000	0.000	5.075	1.487		
DOOR CONDUCTION	0.000	0.000	0.000	0.000	0.000	0.000		
INTERNAL SURFACE COND	0.000	0.000	0.000	0.000	0.000	0.000		
UNDERGROUND SURF COND	-8.488	-2.487	0.000	0.000	-41.972	-12.298		
OCCUPANTS TO SPACE	55.968	16.399	44.125	12.929	0.213	0.062		
LIGHT TO SPACE	91.096	26.691	0.000	0.000	30.973	9.075		
EQUIPMENT TO SPACE	616.804	180.724	32.232	9.444	5.036	1.476		
PROCESS TO SPACE	12.069	3.536	8.781	2.573	0.000	0.000		
INFILTRATION	8.383	2.456	0.083	0.024	-40.539	-11.878		
TOTAL	1278.427	374.579	85.221	24.970	-475.041	-139.187		
TOTAL / AREA	0.007	0.024	0.000	0.002	-0.003	-0.009		
TOTAL LOAD	1363.648	KBTU/H	399.549	KW	-475.041	KBTU/H	-139.187	KW
TOTAL LOAD / AREA	7.95	BTU/H.SQFT	25.078	W/M2	2.770	BTU/H.SQFT	8.736	W/M2

* NOTE 1)THE ABOVE LOADS EXCLUDE OUTSIDE VENTILATION AIR *

* ---- LOADS *

* 2)TIMES GIVEN IN STANDARD TIME FOR THE LOCATION *

* IN CONSIDERATION *

* 3)THE ABOVE LOADS ARE CALCULATED ASSUMING A *

* CONSTANT INDOOR SPACE TEMPERATURE *

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FLOOR AREA	171490	SQFT	15931	M2
VOLUME	1767951	CUFT	50068	M3

TIME	COOLING LOAD		HEATING LOAD	
	JUL 23	8PM	JAN 5	5AM
DRY-BULB TEMP	88 F	31 C	21 F	-6 C
WET-BULB TEMP	68 F	20 C	18 F	-8 C
TOT HORIZONTAL SOLAR RAD	57 BTU/H.SQFT	179 W/M2	0 BTU/H.SQFT	0 W/M2
WINDSPEED AT SPACE	2.7 KTS	1.4 M/S	0.0 KTS	0.0 M/S
CLOUD AMOUNT 0(CLEAR)-10	0		10	

	SENSIBLE		LATENT		SENSIBLE	
	(KBTU/H)	(KW)	(KBTU/H)	(KW)	(KBTU/H)	(KW)
WALL CONDUCTION	104.225	30.538	0.000	0.000	-184.477	-54.052
ROOF CONDUCTION	18.176	5.325	0.000	0.000	-23.582	-6.909
WINDOW GLASS+FRM COND	59.719	17.498	0.000	0.000	-223.195	-65.396
WINDOW GLASS SOLAR	335.465	98.291	0.000	0.000	23.595	6.913
DOOR CONDUCTION	0.000	0.000	0.000	0.000	0.000	0.000
INTERNAL SURFACE COND	0.000	0.000	0.000	0.000	0.000	0.000
UNDERGROUND SURF COND	-4.571	-1.339	0.000	0.000	-49.265	-14.435
OCCUPANTS TO SPACE	36.966	10.831	36.415	10.670	36.803	10.783
LIGHT TO SPACE	72.027	21.104	0.000	0.000	34.916	10.231
EQUIPMENT TO SPACE	437.400	128.158	22.492	6.590	92.510	27.105
PROCESS TO SPACE	7.067	2.071	4.829	1.415	3.323	0.974
INFILTRATION	11.897	3.486	3.375	0.989	-44.197	-12.950
TOTAL	1078.371	315.963	67.111	19.664	-333.569	-97.736
TOTAL / AREA	0.006	0.020	0.000	0.001	-0.002	-0.006
TOTAL LOAD	1145.482 KBTU/H	335.626 KW	-333.569 KBTU/H	-97.736 KW		
TOTAL LOAD / AREA	6.68 BTU/H.SQFT	21.066 W/M2	1.945 BTU/H.SQFT	6.135 W/M2		

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* CONSTANT INDOOR SPACE TEMPERATURE *

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