

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	105.567	30.931	0.000	0.000	-218.447	-64.005		
ROOF CONDUCTION	57.436	16.829	0.000	0.000	-53.464	-15.665		
WINDOW GLASS+FRM COND	88.183	25.838	0.000	0.000	-446.960	-130.959		
WINDOW GLASS SOLAR	601.856	176.344	0.000	0.000	8.417	2.466		
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	-8.431	-2.470	0.000	0.000	-41.865	-12.267		
OCCUPANTS TO SPACE	54.998	16.114	44.125	12.929	0.206	0.060		
LIGHT TO SPACE	177.942	52.137	0.000	0.000	52.071	15.257		
EQUIPMENT TO SPACE	644.762	188.915	33.337	9.768	5.003	1.466		
PROCESS TO SPACE	11.905	3.488	8.781	2.573	0.000	0.000		
INFILTRATION	8.383	2.456	0.083	0.024	-40.539	-11.878		
TOTAL	1742.603	510.583	86.325	25.293	-735.578	-215.524		
TOTAL / AREA	0.010	0.032	0.001	0.002	-0.004	-0.014		
TOTAL LOAD	1828.928	KBTU/H	535.876	KW	-735.578	KBTU/H	-215.524	KW
TOTAL LOAD / AREA	10.66	BTU/H.SQFT	33.635	W/M2	4.289	BTU/H.SQFT	13.528	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	128.728	37.717	0.000	0.000	-218.006	-63.876		
ROOF CONDUCTION	60.111	17.613	0.000	0.000	-63.373	-18.568		
WINDOW GLASS+FRM COND	116.922	34.258	0.000	0.000	-409.944	-120.114		
WINDOW GLASS SOLAR	570.299	167.098	0.000	0.000	38.405	11.253		
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	-4.528	-1.327	0.000	0.000	-49.140	-14.398		
OCCUPANTS TO SPACE	36.316	10.640	36.415	10.670	36.107	10.579		
LIGHT TO SPACE	138.432	40.561	0.000	0.000	60.904	17.845		
EQUIPMENT TO SPACE	458.561	134.358	23.376	6.849	95.682	28.035		
PROCESS TO SPACE	6.974	2.043	4.829	1.415	3.271	0.958		
INFILTRATION	11.897	3.486	3.375	0.989	-44.197	-12.950		
TOTAL	1523.711	446.447	67.995	19.923	-550.291	-161.235		
TOTAL / AREA	0.009	0.028	0.000	0.001	-0.003	-0.010		
TOTAL LOAD	1591.706	KBTU/H	466.370	KW	-550.291	KBTU/H	-161.235	KW
TOTAL LOAD / AREA	9.28	BTU/H.SQFT	29.273	W/M2	3.209	BTU/H.SQFT	10.120	W/M2

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* CONSTANT INDOOR SPACE TEMPERATURE *

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