

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 22	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	98.024	28.721	0.000	0.000	-219.752	-64.387		
ROOF CONDUCTION	57.633	16.887	0.000	0.000	-53.498	-15.675		
WINDOW GLASS+FRM COND	85.260	24.981	0.000	0.000	-438.465	-128.470		
WINDOW GLASS SOLAR	456.832	133.852	0.000	0.000	8.190	2.400		
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	-8.444	-2.474	0.000	0.000	-41.881	-12.271		
OCCUPANTS TO SPACE	55.022	16.121	44.125	12.929	0.206	0.060		
LIGHT TO SPACE	177.980	52.148	0.000	0.000	52.103	15.266		
EQUIPMENT TO SPACE	644.930	188.965	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	1587.526	465.145	86.325	25.293	-728.633	-213.489		
TOTAL / AREA	0.009	0.029	0.001	0.002	-0.004	-0.013		
TOTAL LOAD	1673.851	KBTU/H	490.438	KW	-728.633	KBTU/H	-213.489	KW
TOTAL LOAD / AREA	9.76	BTU/H.SQFT	30.783	W/M2	4.249	BTU/H.SQFT	13.400	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 *

* *

REPORT- LS-C Building Peak Load Components

WEATHER FILE- SEATTLE BOEING FI WA

*** BUILDING ***

FLOOR AREA	171490	SQFT	15931	M2
VOLUME	1767951	CUFT	50068	M3

TIME	COOLING LOAD		HEATING LOAD	
	JUL 23	8PM	JAN 6	5AM
DRY-BULB TEMP	88 F	31 C	27 F	-3 C
WET-BULB TEMP	68 F	20 C	23 F	-5 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	8.0 KTS	4.1 M/S
CLOUD AMOUNT 0(CLEAR)-10	0		10	

	SENSIBLE		LATENT		SENSIBLE			
	(KBTU/H)	(KW)	(KBTU/H)	(KW)	(KBTU/H)	(KW)		
WALL CONDUCTION	117.719	34.492	0.000	0.000	-198.790	-58.245		
ROOF CONDUCTION	60.191	17.636	0.000	0.000	-51.181	-14.996		
WINDOW GLASS+FRM COND	113.694	33.312	0.000	0.000	-394.660	-115.635		
WINDOW GLASS SOLAR	424.023	124.239	0.000	0.000	21.674	6.351		
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	-4.539	-1.330	0.000	0.000	-49.159	-14.404		
OCCUPANTS TO SPACE	36.328	10.644	36.415	10.670	36.030	10.557		
LIGHT TO SPACE	138.488	40.577	0.000	0.000	34.090	9.988		
EQUIPMENT TO SPACE	458.633	134.379	23.376	6.849	94.747	27.761		
PROCESS TO SPACE	6.974	2.043	4.829	1.415	3.271	0.958		
INFILTRATION	11.897	3.486	3.375	0.989	-34.783	-10.192		
TOTAL	1363.408	399.479	67.995	19.923	-538.760	-157.857		
TOTAL / AREA	0.008	0.025	0.000	0.001	-0.003	-0.010		
TOTAL LOAD	1431.403	KBTU/H	419.401	KW	-538.760	KBTU/H	-157.857	KW
TOTAL LOAD / AREA	8.35	BTU/H.SQFT	26.325	W/M2	3.142	BTU/H.SQFT	9.908	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 *

* *
