

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	100.445	29.430	0.000	0.000	-218.044	-63.887		
ROOF CONDUCTION	56.309	16.499	0.000	0.000	-53.475	-15.668		
WINDOW GLASS+FRM COND	87.804	25.727	0.000	0.000	-448.464	-131.400		
WINDOW GLASS SOLAR	549.696	161.061	0.000	0.000	8.395	2.460		
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	-8.430	-2.470	0.000	0.000	-41.864	-12.266		
OCCUPANTS TO SPACE	54.996	16.114	44.125	12.929	0.206	0.060		
LIGHT TO SPACE	177.940	52.136	0.000	0.000	52.069	15.256		
EQUIPMENT TO SPACE	644.745	188.910	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	1683.793	493.351	86.325	25.293	-736.712	-215.857		
TOTAL / AREA	0.010	0.031	0.001	0.002	-0.004	-0.014		
TOTAL LOAD	1770.119	KBTU/H	518.645	KW	-736.712	KBTU/H	-215.857	KW
TOTAL LOAD / AREA	10.32	BTU/H.SQFT	32.554	W/M2	4.296	BTU/H.SQFT	13.549	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	121.419	35.576	0.000	0.000	-217.399	-63.698
ROOF CONDUCTION	58.541	17.152	0.000	0.000	-63.383	-18.571
WINDOW GLASS+FRM COND	116.912	34.255	0.000	0.000	-411.821	-120.664
WINDOW GLASS SOLAR	526.494	154.263	0.000	0.000	37.796	11.074
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	-4.527	-1.326	0.000	0.000	-49.138	-14.397
OCCUPANTS TO SPACE	36.314	10.640	36.415	10.670	36.105	10.579
LIGHT TO SPACE	138.426	40.559	0.000	0.000	60.902	17.844
EQUIPMENT TO SPACE	458.553	134.356	23.376	6.849	95.679	28.034
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	1471.003	431.004	67.995	19.923	-552.186	-161.790
TOTAL / AREA	0.009	0.027	0.000	0.001	-0.003	-0.010
TOTAL LOAD	1538.998	KBTU/H	450.926	KW	-552.186	KBTU/H
TOTAL LOAD / AREA	8.97	BTU/H.SQFT	28.303	W/M2	3.220	BTU/H.SQFT

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* CONSTANT INDOOR SPACE TEMPERATURE *

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