

Design Weather Parameters & MSHGs

Multi-Story Office Building
Carrier Corporation

08/27/2002
02:13PM

Design Parameters:

City Name **Chicago IAP**
 Location **Illinois**
 Latitude **42.0** Deg.
 Longitude **87.9** Deg.
 Elevation **673.0** ft
 Summer Design Dry-Bulb **91.0** °F
 Summer Coincident Wet-Bulb **74.0** °F
 Summer Daily Range **19.6** °F
 Winter Design Dry-Bulb **-6.0** °F
 Winter Design Wet-Bulb **-7.2** °F
 Atmospheric Clearness Number **1.00**
 Average Ground Reflectance **0.20**
 Soil Conductivity **0.800** BTU/(hr-ft-°F)
 Local Time Zone (GMT +/- N hours) **6.0** hours
 Consider Daylight Savings Time **Yes**
 Daylight Savings Begins **April, 7**
 Daylight Savings Ends **October, 25**
 Simulation Weather Data **Chicago (TMY)**
 Current Data is **2001 ASHRAE Handbook**
 Design Cooling Months **January to December**

Design Day Maximum Solar Heat Gains

(The MSHG values are expressed in BTU/(hr-ft²))

Month	N	NNE	NE	ENE	E	ESE	SE	SSE	S
January	18.3	18.3	18.3	76.6	140.5	202.1	233.0	249.8	251.6
February	22.9	22.9	44.9	122.6	186.7	226.8	248.5	248.2	242.7
March	27.9	27.9	98.4	162.7	213.1	239.4	237.9	222.3	210.3
April	33.1	70.8	133.6	192.2	221.3	224.9	204.0	176.6	161.7
May	36.6	102.6	160.9	202.6	220.9	207.2	178.1	139.0	121.7
June	44.6	114.2	168.1	205.1	217.1	198.8	164.7	123.0	104.1
July	37.5	102.4	156.3	200.8	215.5	204.4	172.3	136.3	117.2
August	34.8	69.0	132.2	185.9	211.7	217.7	197.3	171.2	156.0
September	29.2	29.2	89.0	155.7	198.1	228.2	226.4	213.6	205.4
October	23.9	23.9	47.1	114.6	177.4	221.1	239.1	239.3	236.8
November	18.8	18.8	18.8	72.1	142.7	194.1	232.5	247.2	249.5
December	16.4	16.4	16.4	57.8	120.8	185.7	221.5	244.6	249.2
Month	SSW	SW	WSW	W	WNW	NW	NNW	HOR	Mult
January	250.5	233.2	201.7	137.9	77.0	18.3	18.3	119.4	1.00
February	248.4	249.2	226.4	187.5	118.2	49.5	22.9	168.4	1.00
March	222.3	238.0	239.3	213.3	162.3	98.5	27.9	212.3	1.00
April	177.8	206.0	226.2	219.0	191.5	138.8	65.6	244.8	1.00
May	141.0	178.1	210.1	217.2	204.9	161.7	100.7	260.5	1.00
June	124.2	163.9	200.7	215.7	206.8	167.2	113.8	263.3	1.00
July	136.7	172.6	204.9	214.7	201.1	157.7	102.0	256.7	1.00
August	171.8	198.8	218.1	211.1	184.9	134.6	65.4	240.2	1.00
September	214.3	228.5	223.3	203.9	153.5	89.1	29.2	206.9	1.00
October	237.5	237.0	221.5	173.7	118.3	43.8	23.9	166.9	1.00
November	245.8	232.5	195.7	143.3	66.2	18.8	18.8	120.7	1.00
December	243.3	225.4	183.5	126.6	50.7	16.4	16.4	99.7	1.00

Mult. = User-defined solar multiplier factor.