City:	CHEYENNE														
State:	WY														
WBAN No:	24018														
Lat(N):	41.15														
Long(W):	104.82														
Elev(m):	1872														
Pres(mb):	811														
Stn Type:	Secondary														
SOLAR RADIATION FOR FLAT-PLATE COLLECTORS FACING SOUTH AT A FIXED-TILT (kWh/m2/day), Percentage Uncertainty = 9															
Tilt(deg)		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	
0	Average	2.2	3.1	4.2	5.3	6	6.7	6.7	5.9	4.9	3.6	2.4	1.9	4.4	
	Minimum	1.9	2.8	3.8	4.9	5.2	5.9	6.2	4.9	4.2	3	2.2	1.7	4.2	
	Maximum	2.4	3.3	4.6	5.8	6.6	7.5	7.1	6.4	5.4	4	2.6	2.2	4.6	
Lat - 15	Average	3.6	4.4	5.3	5.9	6	6.5	6.6	6.3	5.8	5	3.8	3.3	5.2	
	Minimum	3	3.9	4.6	5.3	5.2	5.7	6.1	5.1	4.8	3.8	3.3	2.8	4.9	
	Maximum	4.1	4.9	5.8	6.5	6.7	7.3	7.1	6.8	6.6	5.6	4.2	4	5.4	
Lat	Average	4.1	4.9	5.5	5.8	5.6	6	6.1	6.1	6	5.4	4.3	3.9	5.3	
	Minimum	3.4	4.3	4.8	5.2	4.9	5.2	5.7	4.9	4.8	4	3.8	3.3	5	
	Maximum	4.8	5.4	6.1	6.4	6.3	6.7	6.5	6.6	6.7	6.1	4.7	4.7	5.5	
Lat + 15	Average	4.5	5.1	5.5	5.4	5	5.1	5.3	5.5	5.7	5.5	4.6	4.2	5.1	
	Minimum	3.6	4.5	4.7	4.9	4.3	4.5	4.9	4.5	4.6	4	4	3.5	4.8	
	Maximum	5.2	5.7	6.1	5.9	5.6	5.7	5.6	5.9	6.5	6.2	5	5.2	5.3	
90	Average	4.2	4.5	4.3	3.6	2.8	2.6	2.8	3.3	4.1	4.6	4.2	4.1	3.8	
	Minimum	3.3	4	3.7	3.3	2.5	2.4	2.6	2.8	3.2	3.3	3.7	3.4	3.5	
	Maximum	4.9	5.2	4.9	4.1	3.1	2.8	2.9	3.5	4.6	5.2	4.7	5.1	3.9	
SOLAR RADIATION FOR 1-AXIS TRACKING FLAT-PLATE COLLECTORS WITH A NORTH-SOUTH AXIS (kWh/m2/day), Percentage Uncertainty = 9															
Axis Tilt		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	
0	Average	3.4	4.6	6.1	7.4	8	9	9.1	8.3	7.1	5.5	3.7	3.1	6.3	
	Minimum	2.8	4.1	5.1	6.6	6.6	7.5	8.4	6.3	5.6	4.1	3.3	2.5	5.8	
	Maximum	4	5.2	7	8.3	9.1	10.5	9.9	9.2	8.2	6.3	4.1	3.7	6.7	
Lat - 15	Average	4.5	5.7	6.9	7.9	8.1	9	9.2	8.7	7.8	6.6	4.8	4.1	6.9	
	Minimum	3.6	4.9	5.7	7	6.6	7.5	8.5	6.6	6.1	4.7	4.1	3.3	6.4	
	Maximum	5.2	6.3	7.9	8.9	9.3	10.6	10	9.7	9.1	7.4	5.3	5	7.4	
Lat	Average	4.9	6	7.1	7.8	7.9	8.7	8.9	8.6	7.9	6.9	5.2	4.6	7	
	Minimum	3.9	5.2	5.8	6.9	6.4	7.2	8.2	6.4	6.2	4.9	4.5	3.7	6.5	
	Maximum	5.8	6.8	8.1	8.8	9	10.1	9.7	9.5	9.2	7.8	5.7	5.6	7.5	
Lat + 15	Average	5.2	6.2	7	7.5	7.4	8.1	8.3	8.2	7.7	6.9	5.4	4.9	6.9	
	Minimum	4.1	5.4	5.8	6.7	6.1	6.7	7.7	6.1	6	4.9	4.6	3.9	6.4	
	Maximum	6.1	6.9	8.1	8.5	8.5	9.5	9.1	9.1	9	7.9	6	6	7.3	
SOLAR RADIATION FOR 2-AXIS TRACKING FLAT-PLATE COLLECTORS (kWh/m2/day), Percentage Uncertainty = 9															
Tracker		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	
2-Axis	Average	5.2	6.2	7.1	7.9	8.2	9.3	9.3	8.8	7.9	6.9	5.4	4.9	7.3	
	Minimum	4.2	5.4	5.8	7	6.7	7.7	8.7	6.6	6.2	4.9	4.7	4	6.7	
	Maximum	6.2	6.9	8.1	8.9	9.4	10.8	10.2	9.7	9.2	7.9	6	6.1	7.7	
DIRECT BEAM SOLAR RADIATION FOR CONCENTRATING COLLECTORS (kWh/m2/day), Percentage Uncertainty = 8															
Tracker		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	
1-X, E-W	Average	3.3	3.6	3.6	3.8	3.9	4.8	4.9	4.5	4.3	4.1	3.3	3.2	3.9	
Hor Axis	Minimum	2.3	2.8	2.5	3	2.6	3.4	4.3	2.9	2.9	2.4	2.6	2.3	3.5	
	Maximum	4.3	4.3	4.5	4.6	4.8	6.1	5.7	5.2	5.3	4.9	3.9	4.3	4.3	
1-X, N-S	Average	2.3	3.2	4.1	5	5.2	6.4	6.5	6	5.2	4.1	2.6	2.1	4.4	
Hor Axis	Minimum	1.7	2.5	2.7	4	3.5	4.5	5.7	3.8	3.5	2.4	2	1.5	3.9	
	Maximum	3.1	3.9	5.3	6.1	6.5	8.2	7.6	7	6.6	4.9	3.1	2.9	4.9	
1-X, N-S	Average	3.6	4.4	4.8	5.3	5.1	6	6.2	6.1	5.9	5.2	3.8	3.4	5	
Tilt=Lat	Minimum	2.6	3.4	3.2	4.2	3.5	4.3	5.5	3.9	4	3.1	3	2.4	4.4	
	Maximum	4.7	5.3	6.2	6.5	6.3	7.8	7.3	7.1	7.4	6.3	4.5	4.6	5.5	
2-X	Average	3.9	4.5	4.9	5.4	5.4	6.6	6.7	6.3	6	5.3	4	3.7	5.2	
	Minimum	2.7	3.5	3.2	4.3	3.7	4.6	5.9	4.1	4	3.1	3.2	2.6	4.6	
	Maximum	5.1	5.4	6.2	6.6	6.7	8.4	7.8	7.4	7.4	6.3	4.7	5	5.7	
AVERAGE CLIMATIC CONDITIONS															
Element		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	
Temp.	(deg C)	-3.1	-1.5	0.9	5.8	11.1	16.3	20.2	19.1	14.1	8.3	1.8	-2.3	7.6	
Daily Min	(deg C)	-9.3	-7.7	-5.5	-1.1	4.1	9.1	12.6	11.6	6.5	1.1	-4.6	-8.5	0.7	
Daily Max	(deg C)	3.2	4.7	7.2	12.6	18.1	23.6	27.9	26.7	21.7	15.6	8.2	3.8	14.4	
Record Lo	(deg C)	-33.9	-36.7	-29.4	-22.2	-8.9	-3.9	3.3	2.2	-13.3	-18.3	-25.6	-33.3	-36.7	
Record Hi	(deg C)	18.9	21.7	23.3	27.8	32.2	37.8	37.8	35.6	33.9	28.3	22.8	20.6	37.8	
HDD,Base=	18.3C	663	556	541	375	224	83	17	24	139	310	497	641	4070	
CDD,Base=	18.3C	0	0	0	0	0	22	76	48	13	0	0	0	158	
Rel Hum	percent	53	55	56	54	56	53	51	51	52	50	54	54	53	
Wind Spd.	(m/s)	7.1	6.6	6.5	6.5	5.8	5.1	4.6	4.6	5	5.4	5.9	6.5	5.8	