NAME OF PROJECT: SOLAR MAX (EAGLE BUILDING PRODUCTS)
Y INTERCEPT=.6706
SLOPE (FRUL)=.7548
UA OF ENTIRE HOUSE=700
INLET TEMPERATURE=65
GROSS COLLECTOR AREA=66
DESIRED TEMPERATURE OF LIVING AREA WHILE OCCUPIED= 70
ALLOWABLE MINIMUM TEMPERATURE=55
COST ELECTRICITY= $.08
UA OF ZONE=200
AVERAGE AMBIENT TEMPERATURE=26

INSOLATION AND AVERAGE AMBIENT TEMP FOR FEB AT 60 DEGREE ANGLE

7A.M.
AVG HOURLY TEMP=16
INSOLATION IN BTU'S/SQ. FT. =24
FLUID PARAMETER=2.04
EFFICIENCY=0
SOLAR BTU'S COLLECTED=0
HEAT LOSS AT 70DEGREES=37800 BTU'S
SOLAR CONTRIBUTION=0 PERCENT
SAVINGS DUE TO SOLAR AND ZONE HEATING=19.84 PERCENT
SAVINGS DUE TO ZONE HEATING ONLY=19.84 PERCENT

8A.M.
AVG HOURLY TEMP=18
INSOLATION IN BTU'S/SQ. FT. =127
FLUID PARAMETER=.37
EFFICIENCY=.35
SOLAR BTU'S COLLECTED=1159.88
HEAT LOSS AT 70DEGREES=36400 BTU'S
SOLAR CONTRIBUTION=3.19 PERCENT
SAVINGS DUE TO SOLAR AND ZONE HEATING=23.79 PERCENT
SAVINGS DUE TO ZONE HEATING ONLY=20.6 PERCENT

9A.M.
AVG HOURLY TEMP=21
INSOLATION IN BTU'S/SQ. FT. =208
FLUID PARAMETER=.21
EFFICIENCY=.47
SOLAR BTU'S COLLECTED=2546.79
HEAT LOSS AT 70DEGREES=34300 BTU'S
SOLAR CONTRIBUTION=7.43 PERCENT
SAVINGS DUE TO SOLAR AND ZONE HEATING=29.29 PERCENT
SAVINGS DUE TO ZONE HEATING ONLY=21.87 PERCENT

10A.M.
AVG HOURLY TEMP=29
INSOLATION IN BTU'S/SQ. FT. =267
FLUID PARAMETER=.13
EFFICIENCY=.53
SOLAR BTU'S COLLECTED=3671.13
HEAT LOSS AT 70DEGREES=28700 BTU'S
SOLAR CONTRIBUTION=12.79 PERCENT
SAVINGS DUE TO SOLAR AND ZONE HEATING=38.92 PERCENT
SAVINGS DUE TO ZONE HEATING ONLY=26.13 PERCENT

11A.M.
AVG HOURLY TEMP=31
INSOLATION IN BTU'S/SQ. FT. =304
FLUID PARAMETER=.11
EFFICIENCY=.55
SOLAR BTU'S COLLECTED=4317.02
HEAT LOSS AT 70DEGREES=27300 BTU'S
SOLAR CONTRIBUTION=15.81 PERCENT
SAVINGS DUE TO SOLAR AND ZONE HEATING=43.29 PERCENT
SAVINGS DUE TO ZONE HEATING ONLY=27.47 PERCENT

12P.M.
AVG HOURLY TEMP=33
INSOLATION IN BTU'S/SQ. FT. =317
FLUID PARAMETER=.1
EFFICIENCY=.55
SOLAR BTU'S COLLECTED=4569.41
HEAT LOSS AT 70DEGREES=25900 BTU'S
SOLAR CONTRIBUTION=17.64 PERCENT
SAVINGS DUE TO SOLAR AND ZONE HEATING=46.6 PERCENT
SAVINGS DUE TO ZONE HEATING ONLY=28.96 PERCENT

1P.M.
AVG HOURLY TEMP=34
INSOLATION IN BTU'S/SQ. FT. =304
FLUID PARAMETER=.1
EFFICIENCY=.55
SOLAR BTU'S COLLECTED=4375.89
HEAT LOSS AT 70DEGREES=25200 BTU'S
SOLAR CONTRIBUTION=17.36 PERCENT
SAVINGS DUE TO SOLAR AND ZONE HEATING=47.13 PERCENT
SAVINGS DUE TO ZONE HEATING ONLY=29.76 PERCENT

2P.M.
AVG HOURLY TEMP=34
INSOLATION IN BTU'S/SQ. FT. =267
FLUID PARAMETER=.12
EFFICIENCY=.54
SOLAR BTU'S COLLECTED=3769.26
HEAT LOSS AT 70DEGREES=25200 BTU'S
SOLAR CONTRIBUTION=14.96 PERCENT
SAVINGS DUE TO SOLAR AND ZONE HEATING=44.72 PERCENT
SAVINGS DUE TO ZONE HEATING ONLY=29.76 PERCENT

3P.M.
AVG HOURLY TEMP=33
INSOLATION IN BTU'S/SQ. FT. =208
FLUID PARAMETER=.15
EFFICIENCY=.51
SOLAR BTU'S COLLECTED=2782.29
HEAT LOSS AT 70DEGREES=25900 BTU'S
SOLAR CONTRIBUTION=10.74 PERCENT
SAVINGS DUE TO SOLAR AND ZONE HEATING=39.7 PERCENT
SAVINGS DUE TO ZONE HEATING ONLY=28.96 PERCENT

4P.M.
AVG HOURLY TEMP=33
INSOLATION IN BTU'S/SQ. FT. =127
FLUID PARAMETER=.25
EFFICIENCY=.44
SOLAR BTU'S COLLECTED=1454.25
HEAT LOSS AT 70DEGREES=25900 BTU'S
SOLAR CONTRIBUTION=5.61 PERCENT
SAVINGS DUE TO SOLAR AND ZONE HEATING=34.57 PERCENT
SAVINGS DUE TO ZONE HEATING ONLY=28.96 PERCENT

5P.M.
AVG HOURLY TEMP=32
INSOLATION IN BTU'S/SQ. FT. =24
FLUID PARAMETER=1.38
EFFICIENCY=0
SOLAR BTU'S COLLECTED=0
HEAT LOSS AT 70DEGREES=26600 BTU'S
SOLAR CONTRIBUTION=0 PERCENT
SAVINGS DUE TO SOLAR AND ZONE HEATING=28.2 PERCENT
SAVINGS DUE TO ZONE HEATING ONLY=28.2 PERCENT

DAILY TOTALS FOR FEB AT 60 DEGREE ANGLE

BASE HEAT LOSS=	739200 BTU
SAVINGS DUE TO NIGHT SETBACK=	84000 BTU OR 11.4%
SAVINGS DUE TO DAY ZONE HEATING=	60000 BTU OR 8.1%
TOTAL INPUT FROM SOLAR COLLECTOR=	28646 BTU OR 3.9%
SAVINGS DUE TO SOLAR COLLECTOR AND ZONE HEATING=	89646 BTU OR 12%
COST TO REPLACE SOLAR HEAT WITH ELECTRIC SPACE HEATER=	$.67

DSF 6.3