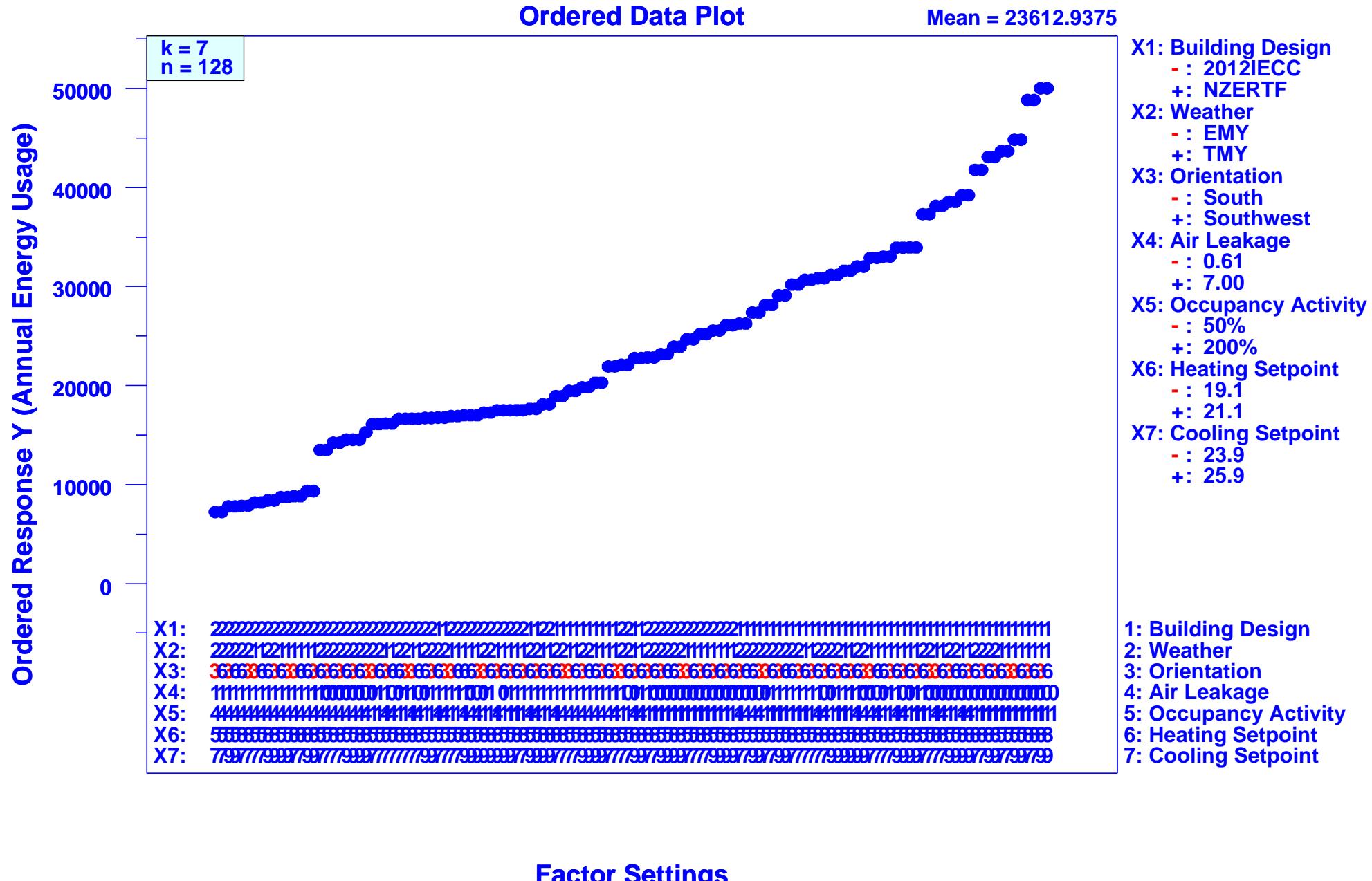
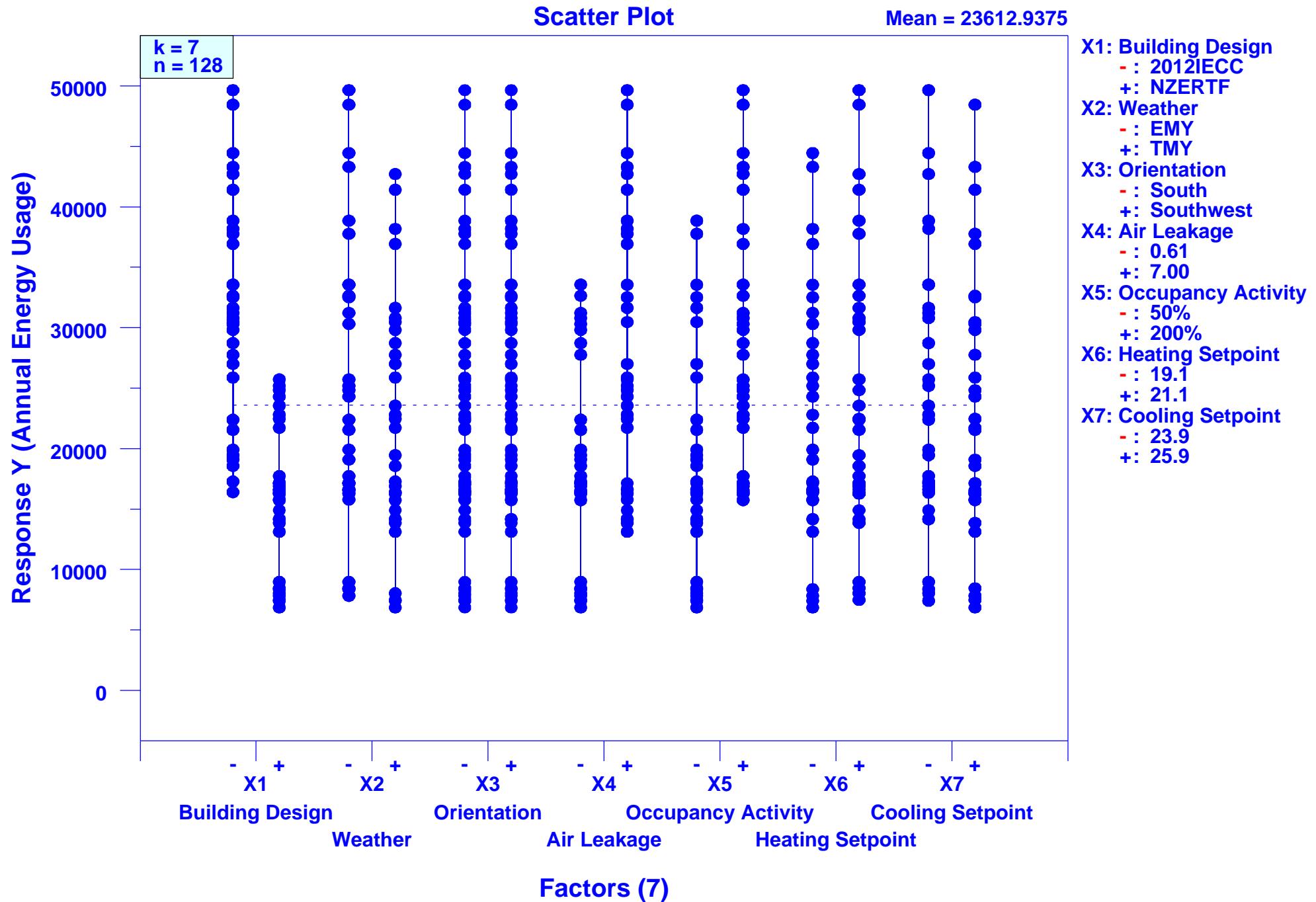


## Sensitivity Analysis of Energy Usage for the NIST Net-Zero House Design: 2<sup>\*\*7</sup> (k=7,n=128)



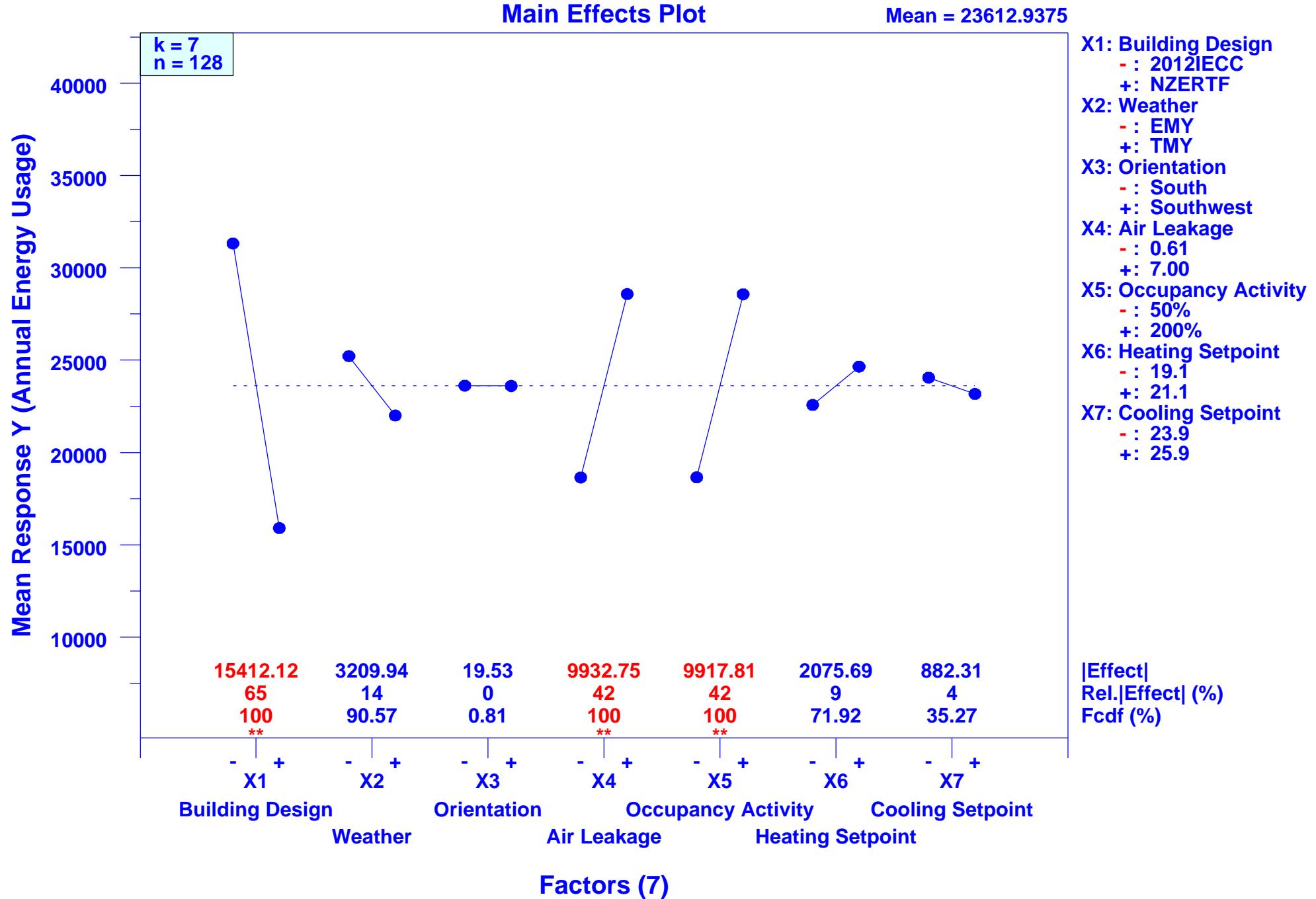
# Sensitivity Analysis of Energy Usage for the NIST Net-Zero House

Design:  $2^{**7}$  ( $k=7, n=128$ )



# Sensitivity Analysis of Energy Usage for the NIST Net-Zero House

Design:  $2^{**7}$  ( $k=7, n=128$ )

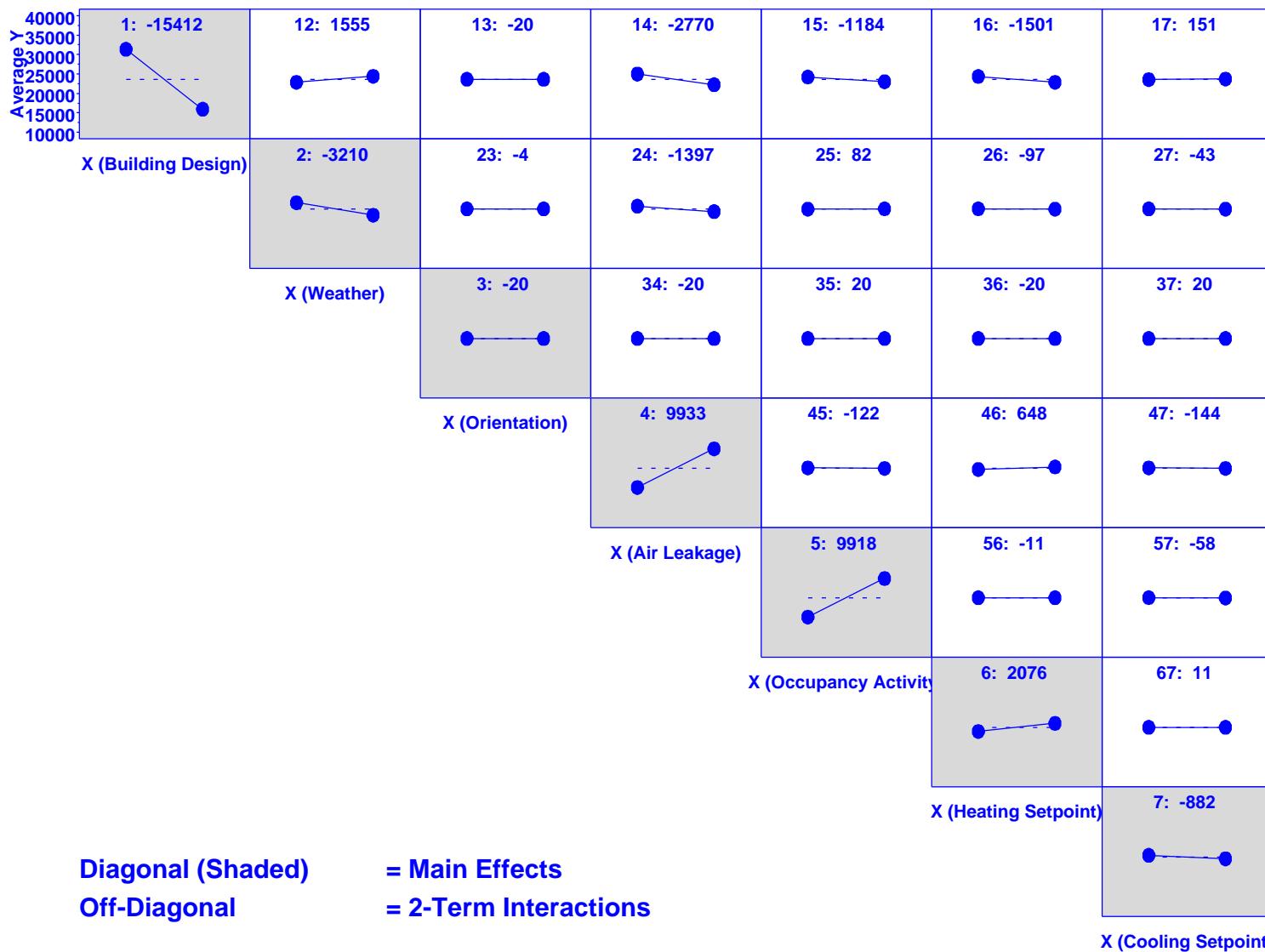


# Sensitivity Analysis of Energy Usage for the NIST Net-Zero House

Design:  $2^{**7}$  ( $k=7, n=128$ )

Interaction Effects Matrix

Mean = 23612.9375



X1: Building Design

- : 2012IECC

+ : NZERTF

X2: Weather

- : EMY

+ : TMY

X3: Orientation

- : South

+ : Southwest

X4: Air Leakage

- : 0.61

+ : 7.00

X5: Occupancy Activity

- : 50%

+ : 200%

X6: Heating Setpoint

- : 19.1

+ : 21.1

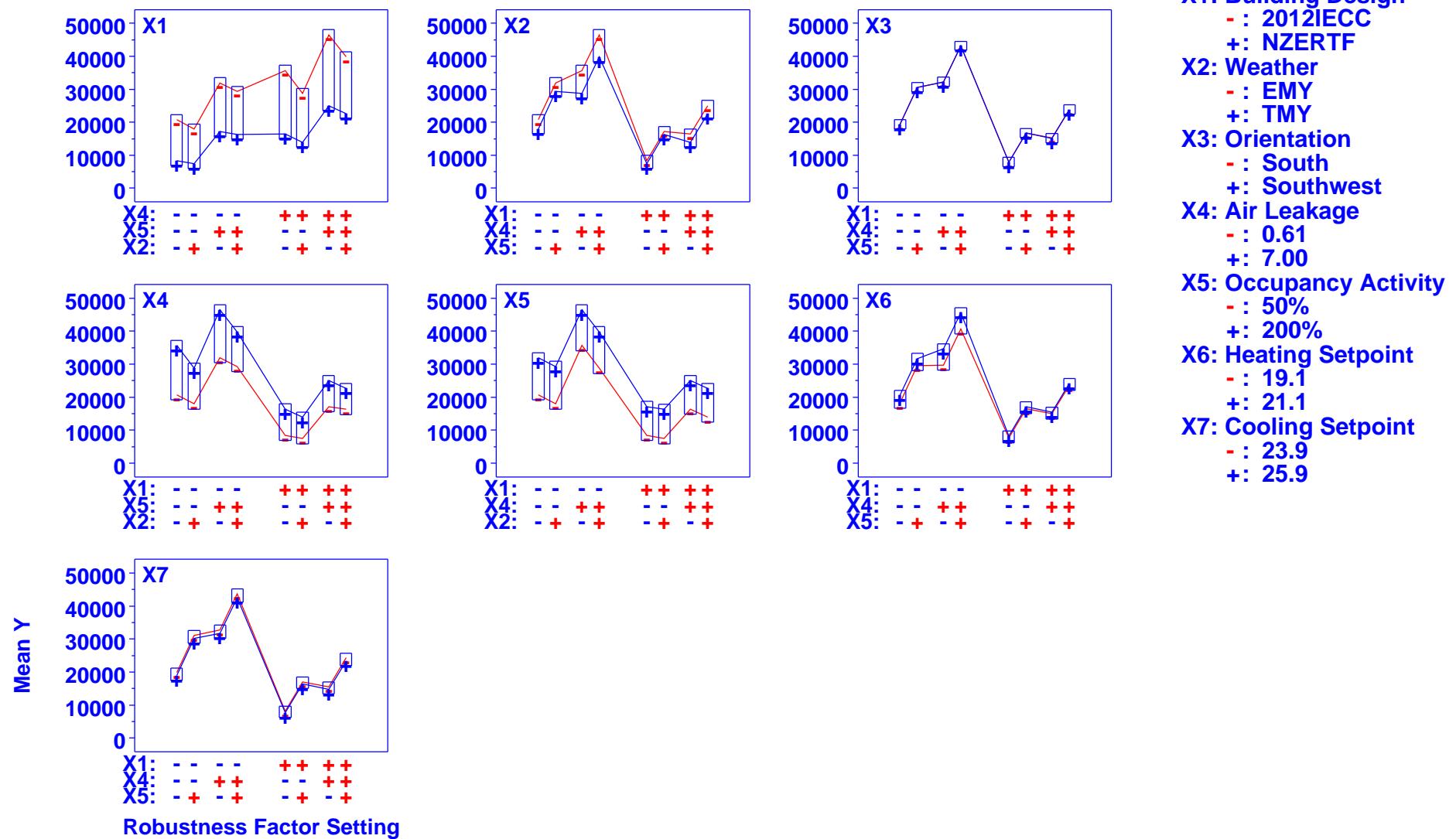
X7: Cooling Setpoint

- : 23.9

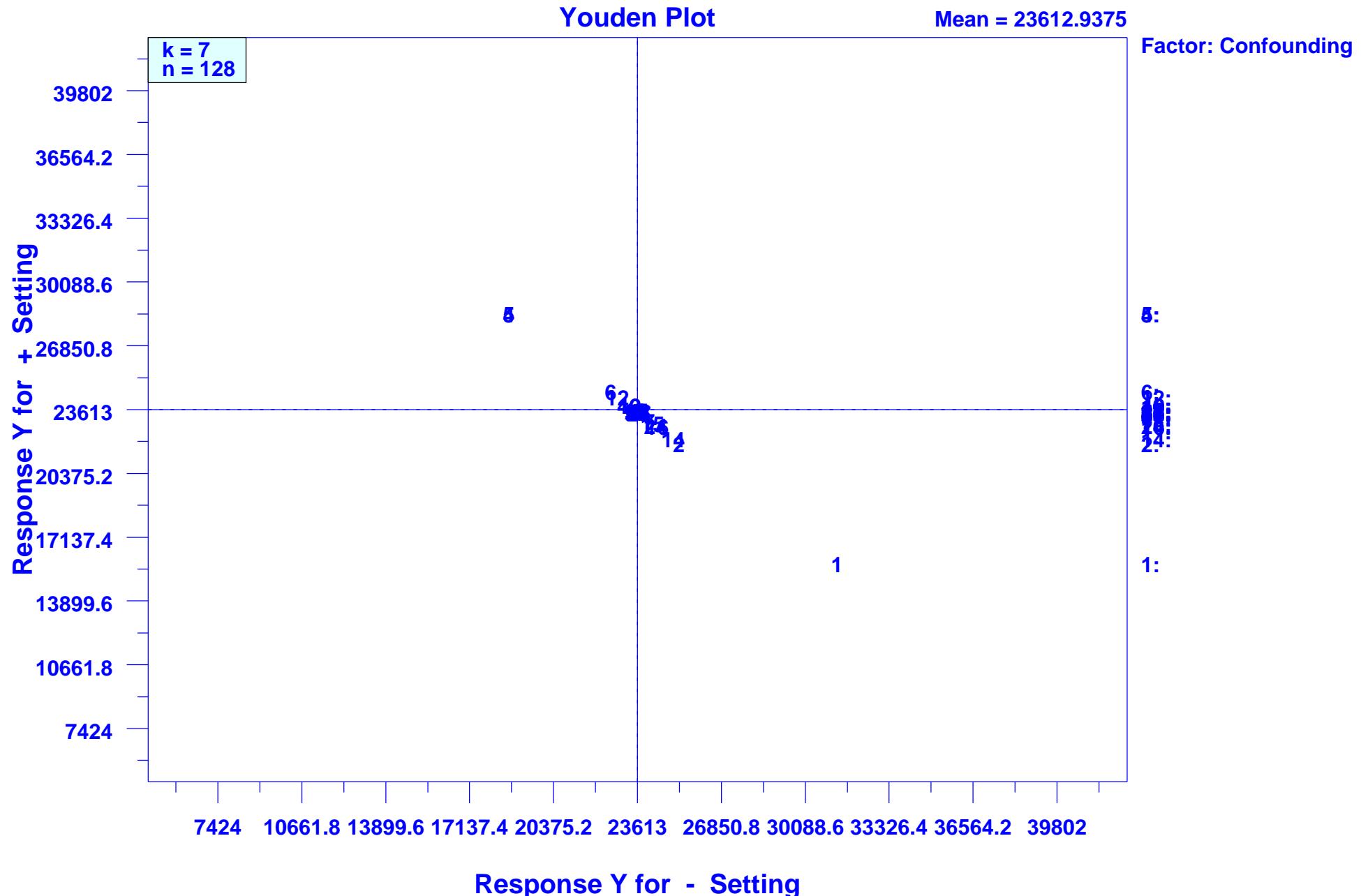
+ : 25.9

# Sensitivity Analysis of Energy Usage for the NIST Net-Zero House Design: 2\*\*7 (k=7,n=128)

## Block Plot

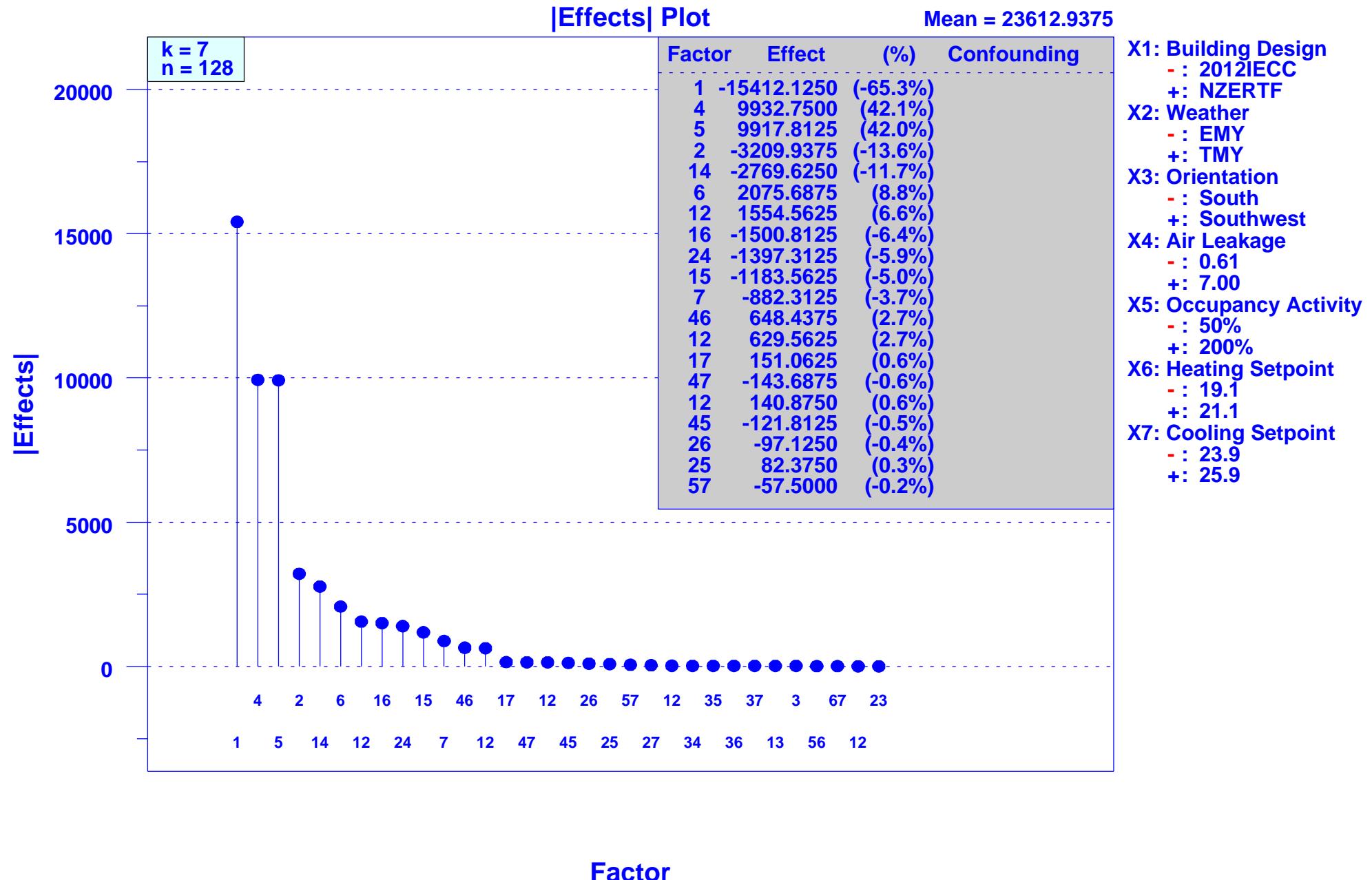


# Sensitivity Analysis of Energy Usage for the NIST Net-Zero House Design: 2\*\*7 (k=7,n=128)

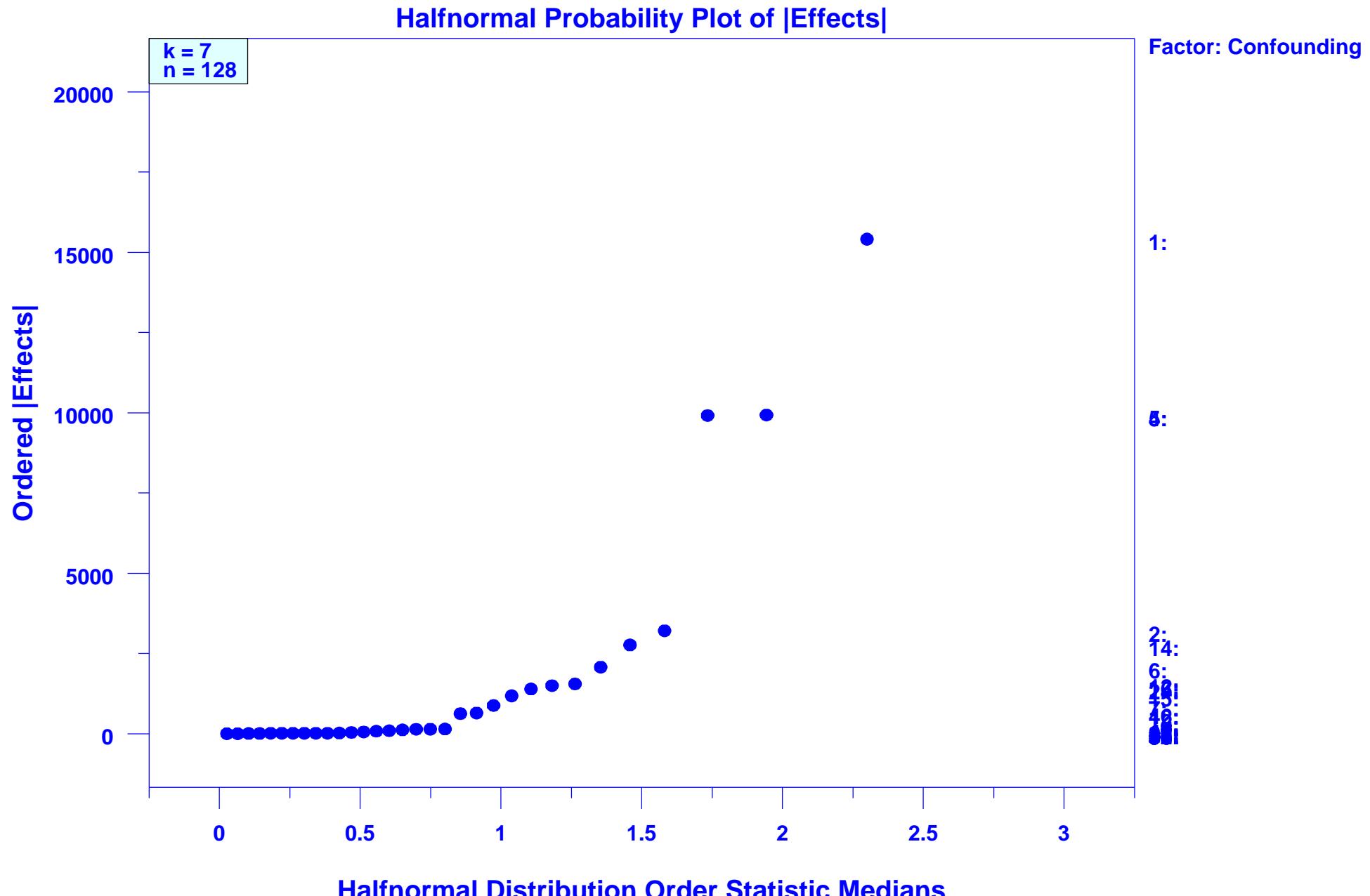


# Sensitivity Analysis of Energy Usage for the NIST Net-Zero House

Design: 2\*\*7 (k=7,n=128)

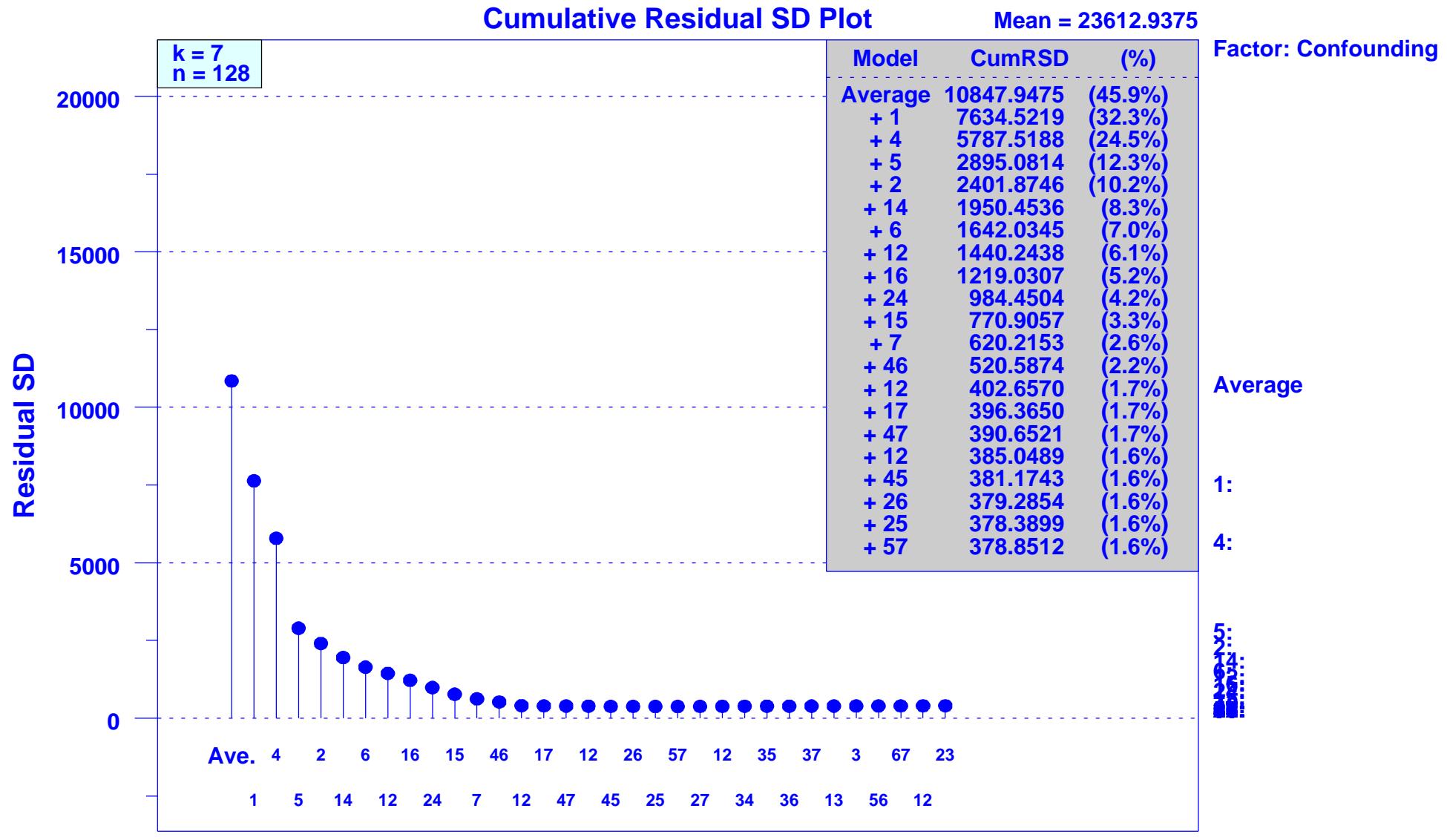


# Sensitivity Analysis of Energy Usage for the NIST Net-Zero House Design: $2^{**7}$ ( $k=7, n=128$ )



# Sensitivity Analysis of Energy Usage for the NIST Net-Zero House

Design:  $2^{**7}$  ( $k=7, n=128$ )



**Cumulative Model**

# Sensitivity Analysis of Energy Usage for the NIST Net-Zero House

Design:  $2^{**7}$  ( $k=7, n=128$ )

