



Professional Awning
Manufacturers Association

Residential Awnings & Exterior Roller Shades & Their Impact on Cooling Energy

A NATION-WIDE 50-CITY STUDY

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COOLING ENERGY SAVINGS WITH AWNINGS & EXTERIOR ROLLER SHADES

WEST / NO. WEST

Anchorage AK
Denver CO
Honolulu HI
Medford OR
Portland OR
Salt Lake City UT
Seattle WA
Boise ID
Sacramento CA
San Francisco CA

EAST / NO. EAST

Washington DC
Boston MA
Portland ME
Charlotte NC
Buffalo NY
New York, NY
Philadelphia PA
Pittsburgh PA
Norfolk VA

CENTRAL / NO. CENTRAL

Chicago IL
Indianapolis IN
Detroit MI
Minneapolis MN
Kansas City MO
St. Louis MO
Omaha NE
Cincinnati OH

SUNBELT

Jacksonville FL
Miami FL
Tampa FL
Atlanta GA
New Orleans LA
Charleston SC
Memphis TN
El Paso TX
Ft. Worth TX
Houston TX
San Antonio TX
Birmingham AL
Mobile AL
Little Rock AR
Oklahoma City OK
Phoenix AZ
Tucson AZ
Burbank CA
Fresno CA
Palm Springs CA
San Diego CA
Albuquerque NM
Las Vegas NV

COOLING ENERGY SAVINGS WITH AWNINGS



AVERAGE ENERGY SAVINGS

Typical Year **43%**

Hot Year: **23%**

AVERAGE ENERGY SAVINGS RANGE

Typical Year: **34 - 52%**

Hot Year: **17 - 29%**

CENTRAL / NORTH CENTRAL UNITED STATES - 8 Cities

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**ILLINOIS • INDIANA
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MISSOURI • NEBRASKA • OHIO**

COOLING ENERGY SAVINGS WITH AWNINGS

CENTRAL / NORTH CENTRAL	Cooling Energy Savings (%)		Energy Savings Amount (\$)	
	Avg. Year	Hot Year	Avg. Year	Hot Year
Chicago, IL	48%	38%	\$ 56	\$ 64
Indianapolis, IN	42%	34%	\$ 56	\$ 70
Detroit, MI	52%	38%	\$ 51	\$ 69
Minneapolis, MN	51%	42%	\$ 44	\$ 57
Kansas City, MO	36%	28%	\$ 59	\$ 75
St. Louis, MO	34%	30%	\$ 64	\$ 82
Omaha, NE	37%	35%	\$ 59	\$ 71
Cincinnati, OH	40%	35%	\$ 58	\$ 88

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COOLING ENERGY SAVINGS WITH EXTERIOR SHADES



AVERAGE ENERGY SAVINGS
Typical Year: 28%
Hot Year: 24%

AVERAGE ENERGY SAVINGS RANGE
Typical Year: 24 - 33%
Hot Year: 17 - 29%

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COOLING ENERGY SAVINGS WITH EXTERNAL ROLLER SHADES

CENTRAL / NORTH CENTRAL	Cooling Energy Savings (%)		Energy Savings Amount (\$)	
	Avg. Year	Hot Year	Avg. Year	Hot Year
Chicago, IL	33%	27%	\$ 38	\$ 46
Indianapolis, IN	29%	24%	\$ 39	\$ 49
Detroit, MI	32%	27%	\$ 32	\$ 49
Minneapolis, MN	27%	25%	\$ 23	\$ 33
Kansas City, MO	28%	18%	\$ 46	\$ 49
St. Louis, MO	24%	20%	\$ 45	\$ 55
Omaha, NE	25%	27%	\$ 39	\$ 56
Cincinnati, OH	26%	26%	\$ 38	\$ 66

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COOLING ENERGY SAVINGS WITH AWNINGS & EXTERIOR ROLLER SHADES

This study was commissioned by the Professional Awning Manufacturers Association and conducted by White Box Technologies. The study calculates the impact of awnings and roller shades in 50 cities across the United States and incorporates weather patterns for 10 years for each of the 50 cities to establish a "typical" year. In addition, the study includes data for the hottest year among the ten.

The study considers three (3) variations of window glass, four (4) variations of window orientation and both summer and year-round use of awnings and roller shades. While an earlier 12-city study focused on newer home construction, this study considers an older home which is 10% smaller (1700 sq. ft.) and has less insulation.

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