



**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 25%

Hot Year: 13%

AVERAGE ENERGY SAVINGS RANGE

Typical Year: 18 - 46%

Hot Year: 9 - 26%

SUNBELT UNITED STATES - 23 Cities

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ALABAMA • ARIZONA**

COOLING ENERGY SAVINGS WITH AWNINGS

EASTERN SUNBELT	Cooling Energy Savings (%)		Energy Savings Amount (\$)	
	Avg Year	Hot Year	Avg. Year	Hot Year
Jacksonville, FL	27%	27%	\$138	\$165
Miami, FL	24%	23%	\$203	\$241
Tampa, FL	25%	24%	\$173	\$203
Atlanta, GA	30%	26%	\$ 94	\$ 109
New Orleans, LA	26%	24%	\$103	\$126
Charleston, SC	25%	22%	\$102	\$112
Memphis, TN	22%	20%	\$100	\$131
Birmingham, AL	30%	25%	\$ 94	\$108
Mobile, AL	26%	25%	\$107	\$117
Little Rock, AR	27%	23%	\$ 78	\$ 96

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COOLING ENERGY SAVINGS WITH AWNINGS

SOUTHWEST SUNBELT	Cooling Energy Savings (%)		Energy Savings Amount (\$)	
	Avg. Year	Hot Year	Avg. Year	Hot Year
El Paso, TX	26%	22%	\$100	\$131
Ft. Worth, TX	20%	19%	\$101	\$136
Houston, TX	25%	21%	\$128	\$153
San Antonio, TX	24%	21%	\$131	\$153
Oklahoma City, OK	26%	21%	\$ 79	\$ 95
Phoenix, AR	17%	16%	\$ 161	\$179
Tucson, AR	21%	21%	\$126	\$155
Albuquerque, NM	32%	26%	\$ 66	\$ 80



COOLING ENERGY SAVINGS WITH AWNINGS

WESTERN SUNBELT	Cooling Energy Savings (%)		Energy Savings Amount (\$)	
	Avg Year	Hot Year	Avg. Year	Hot Year
Burbank, CA	32%	31%	\$116	\$149
Fresno, CA	24%	23%	\$141	\$165
Palm Springs, CA	18%	17%	\$220	\$235
San Diego, CA	46%	39%	\$ 63	\$ 85
Las Vegas, NV	19%	17%	\$119	\$143

COOLING ENERGY SAVINGS WITH EXTERIOR SHADES



AVERAGE ENERGY SAVINGS

Typical Year 19%

Hot Year: 18%

AVERAGE ENERGY SAVINGS RANGE

Typical Year: 15 - 28%

Hot Year: 15 - 24%

SUNBELT UNITED STATES - 23 Cities

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COOLING ENERGY SAVINGS WITH EXTERNAL ROLLER SHADES

EASTERN SUNBELT	Cooling Energy Savings (%)		Energy Savings Amount (\$)	
	Avg. Year	Hot Year	Avg. Year	Hot Year
Jacksonville, FL	20%	19%	\$102	\$118
Miami, FL	18%	18%	\$157	\$186
Tampa, FL	19%	20%	\$133	\$164
Atlanta, GA	20%	19%	\$65	\$80
New Orleans, LA	19%	18%	\$76	\$97
Charleston, SC	18%	16%	\$75	\$79
Memphis, TN	17%	15%	\$70	\$86
Birmingham, AL	20%	20%	\$64	\$87
Mobile, AL	20%	19%	\$81	\$85
Little Rock, AR	20%	18%	\$58	\$75

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COOLING ENERGY SAVINGS WITH EXTERNAL ROLLER SHADES

SOUTHWEST SUNBELT	Cooling Energy Savings (%)		Energy Savings Amount (\$)	
	Avg. Year	Hot Year	Avg. Year	Hot Year
El Paso, TX	22%	22%	\$ 85	\$137
Ft. Worth, TX	17%	17%	\$ 83	\$122
Houston, TX	18%	18%	\$ 93	\$134
San Antonio, TX	19%	17%	\$102	\$126
Oklahoma City, OK	20%	17%	\$ 60	\$ 76
Phoenix, AR	15%	16%	\$145	\$174
Tucson, AR	18%	20%	\$109	\$149
Albuquerque, NM	25%	22%	\$ 52	\$ 67

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SOUTHERN CALIFORNIA • NEVADA

COOLING ENERGY SAVINGS WITH EXTERNAL ROLLER SHADES

WESTERN SUNBELT	Cooling Energy Savings (%)		Energy Savings Amount (\$)	
	Avg Year	Hot Year	Avg. Year	Hot Year
Burbank, CA	22%	24%	\$ 79	\$116
Fresno, CA	22%	22%	\$127	\$156
Palm Springs, CA	17%	16%	\$207	\$229
San Diego, CA	28%	24%	\$ 38	\$ 52
Las Vegas, NV	17%	18%	\$111	\$147



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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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