

Residential Awnings & Exterior Roller Shades &

Their Impact on Cooling Energy

### A NATION-WIDE 50-CITY STUDY





# 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

Chanotte No

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

Cincinnatti OH

SUNBELT

Jacksonville FL

Miami FL

Tampa FL

Atlanta GA

New Orleans LA

Charleston SC

Memphis TN

El Paso TX

Ft. Worth TX

Ft. Worth TX

Houston TX

San Antonio TX Birmingham AL Mobile AL

Little Rock AR

Oklahoma City OK

Phoeniz AZ

Tucson AZ

Burbank CA

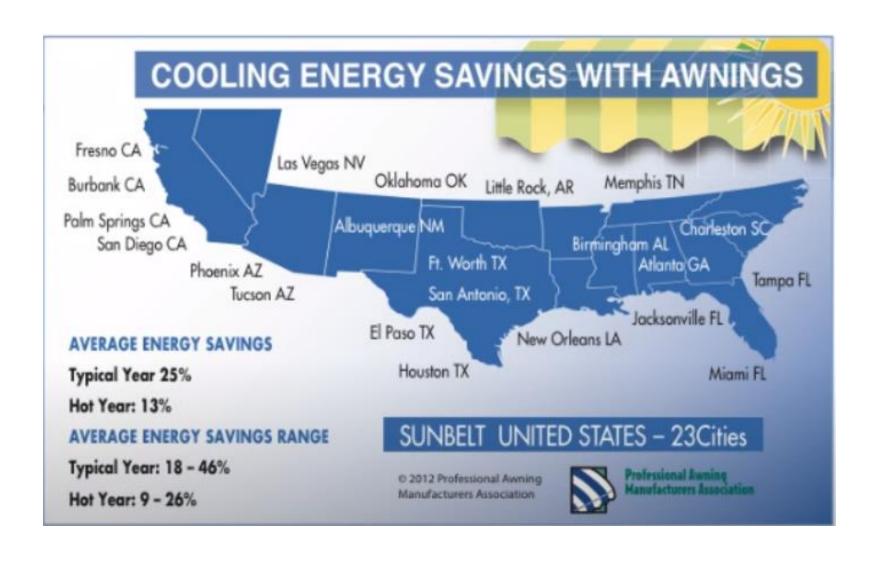
Fresno CA

Palm Springs CA

San Diego CA

Albuquerque NM

Las Vegas NV





### FLORIDA • GEORGIA • LOUISIANA SOUTH CAROLINA • TENNESSEE 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	275	27%	\$138	\$165
Miami, FL	24%	23%	\$203	5241
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%	235	\$ 78	\$ 96



# OKLAHOMA • TEXAS ARIZONA • NEW MEXICO

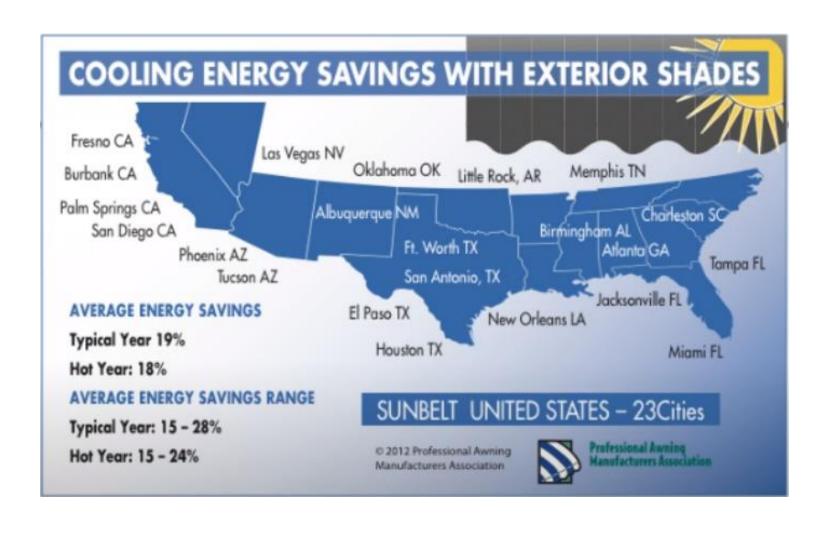
### **COOLING ENERGY SAVINGS WITH AWNINGS**

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	5 80

#### **SOUTHERN CALIFORNIA • NEVADA**

## **COOLING ENERGY SAVINGS WITH AWNINGS**

WESTERN SUNBELT	Cooling Energy Savings		Energy Savings Amount (S)	
	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





# FLORIDA • GEORGIA • LOUISIANA SOUTH CAROLINA • TENNESSEE ALABAMA • ARIZONA

### **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%	\$1.57	\$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



#### OKLAHOMA • TEXAS ARIZONA • NEW MEXICO

### **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



#### **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





# 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.