# Article information:

Managing Solar Gain | Builder Magazine  
<https://www.builderonline.com/building/building-science/managing-solar-gain_o>

# Article summary:

1. In the southern U.S., solar gain is a load rather than an asset, so designers need to consider options for rejecting the sun's heat.

2. Building orientation, window placement, overhangs and shade structures, natural shading, reflective roofing and siding, and properly chosen windows can all impact a home's energy demand and occupants' comfort during sunny times of the day and year.

3. Reflective walls can cut cooling costs by up to 12%, while window technology such as films can reject solar heat without reducing visible light transmittance.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article "Managing Solar Gain" by Builder Magazine provides useful insights into how designers can manage solar gain in high-performance homes. However, the article has some potential biases and missing points of consideration that need to be addressed.

One-sided Reporting

The article focuses mainly on managing solar gain in the southern U.S., where cooling loads dominate the energy equation. While this is an important consideration, it neglects the fact that solar gain can also be a beneficial source of heating energy in northern regions. The article could have provided more balanced reporting by discussing both sides of the issue.

Unsupported Claims

The article claims that reflective roofing can cut cooling costs by as much as 20%, particularly for houses with poor ceiling insulation or with leaky ductwork in the attic space. However, there is no evidence provided to support this claim. The article could have cited studies or research to back up this assertion.

Missing Points of Consideration

The article discusses various strategies for managing solar gain, such as building orientation, overhangs and shade structures, natural shading, reflective roofing and siding, and window technology. However, it does not address other important factors such as insulation, air sealing, and ventilation. These elements are critical for ensuring energy efficiency and occupant comfort in high-performance homes.

Unexplored Counterarguments

The article presents various strategies for managing solar gain but does not explore counterarguments or potential drawbacks to these approaches. For example, while reflective roofing may reduce cooling costs, it may also increase heating costs during colder months by reflecting heat away from the roof.

Promotional Content

The article mentions specific products and technologies without providing a broader context or discussing alternative options. For example, it highlights window films without mentioning other types of window treatments such as shades or blinds.

Partiality

The article focuses primarily on strategies for managing solar gain in single-family homes rather than multi-unit buildings or commercial properties. This narrow focus may limit its applicability to a broader audience.

In conclusion, while the article "Managing Solar Gain" provides useful insights into managing solar gain in high-performance homes, it has some potential biases and missing points of consideration that need to be addressed. A more balanced and comprehensive approach would provide a more accurate and informative resource for designers and builders.

# Topics for further research:

* Insulation and air sealing strategies for high-performance homes
* Ventilation systems for managing solar gain in buildings
* The benefits and drawbacks of reflective roofing in different climates
* Alternative window treatments for reducing solar heat gain
* Strategies for managing solar gain in multi-unit buildings and commercial properties
* The role of thermal mass in managing solar gain in high-performance homes

# Report location:

<https://www.fullpicture.app/item/90cb3159eb6e61ba78a7c3f2a90d7646>