



Skylights

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Your reference
ENERGY STAR Version 7.0

Our reference
Stakeholder Comment

Date
Aug 9, 2022

Subject: VELUX® Stakeholder Comments to ENERGY STAR Proposed Version 7.0

To Whom It May Concern,

VELUX America LLC has long been a supporter of the ENERGY STAR program for residential windows, doors and skylights (WDS) and always appreciates the opportunity to work with the Environmental Protection Agency (EPA) on future proposed changes to the program. As the leading US manufacturer of residential skylights, VELUX supports the EPA recommendation to advance the skylight specification as opposed to sunsetting it. We also support simplifying US skylight criteria by establishing one set of criteria for the Northern climate zone and a separate set of criteria grouped to include the North-Central, South-Central and Southern climate zones.

VELUX acknowledges new opportunities exist to improve skylight criteria, but reiterate concern that the EPA’s proposed changes are too ambitious and used an arbitrary approach to decide on new criteria levels, a sentiment shared by other WDMA and FGIA members. The EPA Version 7.0 Criteria Analysis Report provided in July 2021 suggests the recommended skylight U-factor criteria of 0.45 is acceptable since it is less stringent than the Canadian ENERGY STAR criteria of 0.40. Again, this is not a valid comparison and VELUX recommends the EPA not pursue a complimentary skylight criteria that considers Canada. The current Canadian ENERGY STAR program provides a single skylight criteria that covers all of Canada, a much larger area than the Northern US climate zone and supports Canadian desire for a single climate zone criteria and the fact that much of Canada experiences significantly colder climatic conditions contributing to a single Canadian U-factor criteria that is much lower than would be expected if southern Canada had a separate criteria. The previous version of Canadian ENERGY STAR criteria for skylights was broken into three zones that ranged from 0.37 in the northern most climate zone to 0.46 in the southern most climate zone. As EPA seeks to improve the U-factor in the Northern climate zone, the same incremental improvements of 0.05 used in past ENERGY STAR updates should be replaced by more moderate incremental improvements. VELUX proposes a U-factor Northern climate zone requirement of 0.48 for Version 7.0 specification which offers the opportunity to improve the Northern climate zone U-factor closer to 0.45 at a future specification update. VELUX also supports improving the U-factor in the North-Central, South-Central, and Southern climate zones to 0.50.

In addition, VELUX supports maintaining the skylight SHGC criteria of “Any” in the Northern climate zone, but the proposed 0.25 SHGC criteria for the North-Central, South-Central and Southern climate zones is too aggressive, especially for the North-Central which moves from a 0.35 SHGC to a proposed 0.25 SHGC. VELUX recommends maintaining a 0.28 SHGC for the North-Central,

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South-Central, and Southern climate zones. SHGC can be controlled through coatings with lower visible light transmittance (Vt), but it results in less daylight through the skylight. This is counter-intuitive as customers primarily purchase and install skylights to provide natural light into dark spaces. While a lower Vt may be acceptable in southern climate zones with numerous sunny days, a lower Vt is not pleasing to customers in the North-Central climate zone desiring the additional daylight due to limited sunny days. VELUX investigated to determine viable cost competitive coating options from our glass suppliers that provide additional SHGC protection without compromising light transmittance. Our investigation found that glass suppliers are now conducting tests with these coatings that offer lower SHGC and maintain customer friendly light transmittance, but they are not prepared to run these products in high volumes until 2024. It is not unusual for ENERGY STAR SHGC criteria to remain unchanged over two specification cycles as it did in 2005 until VERSION 6.0 launched in 2015 and therefore Version 7.0 should continue with the 0.28 SHGC in the three Southern climate zones.

It will likely be 2024 before VELUX can fully support skylight market demand meeting a more aggressive skylight criteria of 0.45 U-factor in the Northern Zone and 0.25 SHGC or less in the North-Central Zone. This delay is forecast due to supply system constraints and shortages seen throughout the market and experienced by VELUX and all manufacturers in general. VELUX believes our recommendations offer a bridge to achieve values the EPA ultimately seeks and provides us time to make product improvements to meet a more simplified ENERGY STAR skylight program.

We appreciate the EPA's willingness to solicit and consider feedback from ENERGY STAR partners. VELUX is prepared to deliver products to the market by 2023 that meet the alternate criteria proposed below and offer to continue working with the EPA in hopes of a reconsideration of their proposed 7.0 changes. Thank you again for the opportunity to share our insights.

Proposed Skylight Criteria

Climate Zone	U-Factor	SHGC
Northern	≤ 0.48	Any
North-Central		
South-Central	≤ 0.50	≤ 0.28
Southern		

With kind regards,



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