
Rooflight performance

Site assembled rooflights

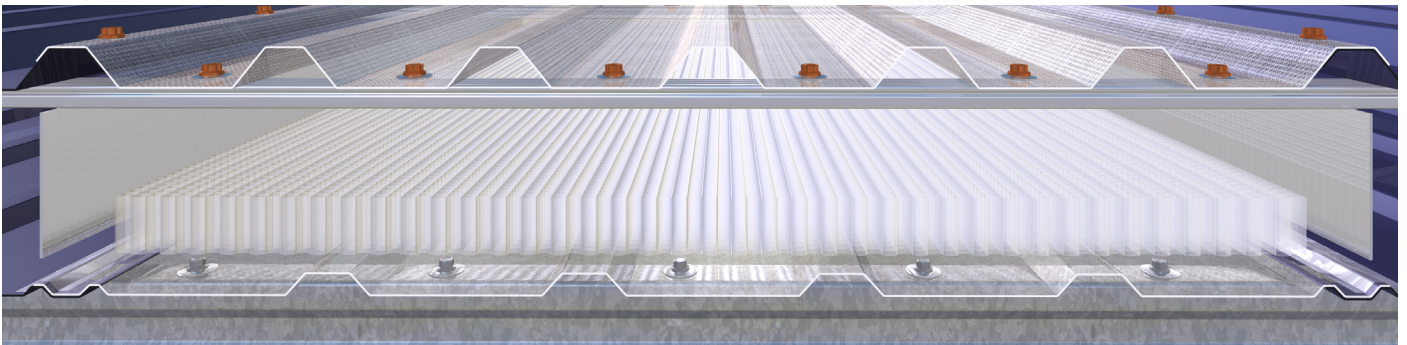
Zenon site assembled rooflights can combine Zenon Pro and Zenon Evolution weather sheet and liner panel configurations to suit the building requirements. Manufactured to match all commonly available metal cladding profiles for both new build and refurbishment projects, the various sheet weights can be mixed and matched to meet the best performance criteria for your building design. Where insulated assemblies are required to meet Building Regulations and to improve building energy performance, our unique Zenon Insulator core or polycarbonate options can be selected.

All our insulated rooflight assemblies achieve U-values below the Building Regulations Part L notional building value of $1.8\text{W/m}^2\text{K}$. All our assembly combinations meet, or more often exceed, the required non-fragility classification as defined in NARM Technical Document NTD03 in conjunction with ACR(M)001. Each sheet can be manufactured to the required fire grade. Uninsulated rooflight assemblies are available for agricultural building applications where Building Regulation requirements may not be applicable.

Configurations

The options demonstrate the effect that our different insulation options have on building performance for the average Zenon Pro and Evolution assemblies. (Shown overleaf are typical values only and vary subject to specific specification requirements.)

For more specific performance data based on specific configurations for your building design requirements, please contact our Sales Department on 01327 701920 or our Technical Department on techelp@hambleside-danelaw.co.uk.





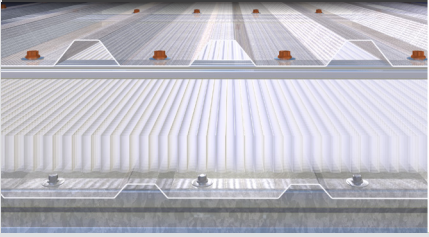


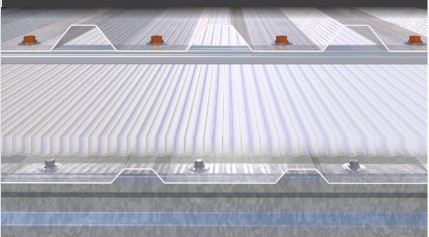


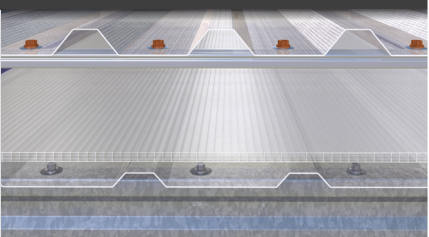
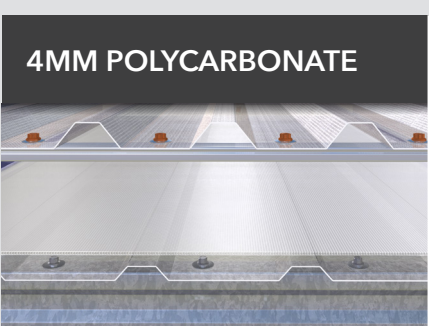



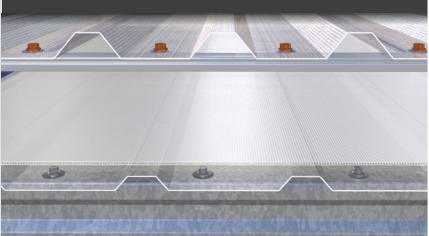


Please note: rooflight U-values quoted by Hambleside Danelaw are values determined by physical testing in the horizontal plane. When using design tools such as SBEM, it is important to ensure that the entered value is not assumed by the program to be the value determined in the vertical plane and consequently an automatic adjustment or correction applied.

Wall lights used in the vertical plane provide a nominal 10% improvement on the stated U-values when compared to their use in horizontal applications.

Site assembled

PERFORMANCE
IMPROVEMENT

40MM INSULATOR	 %	 W/m²K	 %	 kg Co ₂ e/m²
	Zenon Pro			
	56	1.2	56	38.5
	Zenon Evolution			
	46	1.2	47	37
20MM INSULATOR	 %	 W/m²K	 %	 kg Co ₂ e/m²
	Zenon Pro			
	56	1.3	56	37.5
	Zenon Evolution			
	46	1.3	47	36
10MM POLYCARBONATE	 %	 W/m²K	 %	 kg Co ₂ e/m²
	Zenon Pro			
	43	1.3	44	46.5
	Zenon Evolution			
	35	1.3	36	44.5
4MM POLYCARBONATE	 %	 W/m²K	 %	 kg Co ₂ e/m²
	Zenon Pro			
	53	1.7	52	42.5
	Zenon Evolution			
	45	1.7	43	40.5

Typical figures for comparison purposes only, based on physical testing by NPL.

KEY



LIGHT TRANSMISSION



THERMAL PERFORMANCE



SOLAR GAIN



EMBODIED CARBON

ZENON FROM HAMBLESIDE DANELAW

Rooflight performance

Factory assembled rooflights

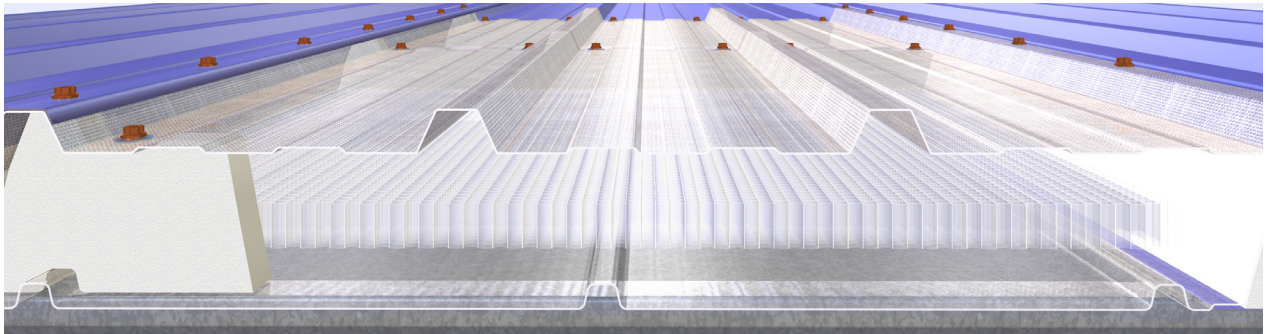
Zenon factory assembled insulated rooflights (FAIRS), to suit composite panel cladding systems, can comprise of Zenon Pro and Zenon Evolution weather sheet and liner panel configurations to suit the building requirements. Where insulated assemblies are required to meet Building Regulations and to improve building performance, our unique Zenon Insulator or polycarbonate options can be selected.

All our triple skin FAIRS achieve U-values which out-perform the Building Regulations Part L notional building value of $1.8\text{W/m}^2\text{K}$.

Configurations

The options demonstrate the effect that our different insulation options have on building performance for the average Zenon Pro and Zenon Evolution FAIRS assemblies. (Shown overleaf are typical values only and vary subject to specific specification requirements.)

For more specific performance data based on specific configurations for your building design requirements, please contact our **Sales Department** on 01327 701920 or our **Technical Department** on techhelp@hambleside-danelaw.co.uk.











Please note: *rooflight U-values quoted by Hambleside Danelaw are values determined by physical testing in the horizontal plane. When using design tools such as SBEM, it is important to ensure that the entered value is not assumed by the program to be the value determined in the vertical plane and consequently an automatic adjustment or correction applied.*





Wall lights used in the vertical plane provide a nominal 10% improvement on the stated U-values when compared to their use in horizontal applications.





Factory assembled

PERFORMANCE
IMPROVEMENT

40MM INSULATOR				
	%	W/m²K	%	kg Co₂e/m²
	Zenon Pro			
	61	1.1	61	35.5
	Zenon Evolution			
	50	1.1	50	34

20MM INSULATOR				
	%	W/m²K	%	kg Co₂e/m²
	Zenon Pro			
	61	1.2	61	35
	Zenon Evolution			
	50	1.2	50	33.5

10MM POLYCARBONATE				
	%	W/m²K	%	kg Co₂e/m²
	Zenon Pro			
	44	1.2	44	44.5
	Zenon Evolution			
	36	1.2	36	43

4MM POLYCARBONATE				
	%	W/m²K	%	kg Co₂e/m²
	Zenon Pro			
	53	1.5	53	40.5
	Zenon Evolution			
	44	1.5	43	38.5


Typical figures for comparison purposes only, based on physical testing by NPL.

KEY


 LIGHT TRANSMISSION


 THERMAL PERFORMANCE


 SOLAR GAIN


 EMBODIED CARBON