



Project reference: Woodmill and St Columba's RC High School, Dunfermline



LAMILUX Glass Roof PR60 Passivhaus. [Click here for product webpage](#)

LAMILUX Glass Skylight FE Passivhaus. [Click here for product webpage](#)

Architect: AHR

Main Contractor: Bam Construction Ltd

LAMILUX introduces bright spaces in the future of sustainable education

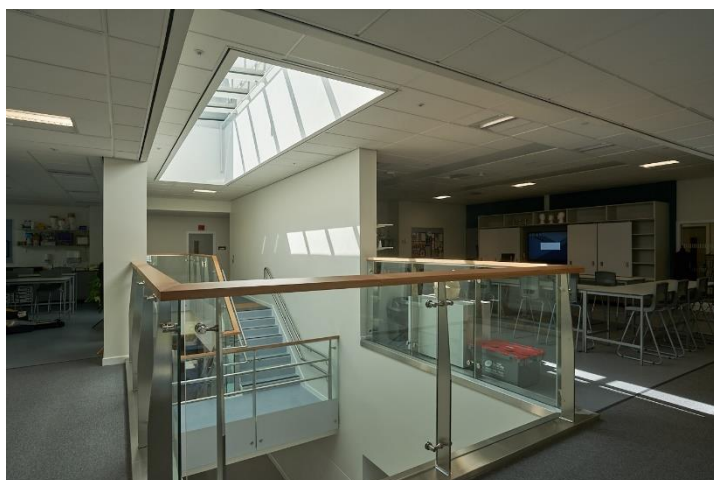
A new build school in Dunfermline, Scotland, has replaced St Columba's RC High School and Woodmill High School as part of the new Dunfermline Learning Campus. Historically, both schools were rated as Grade C (poor, exhibiting major defects, and/or not operating as intended) due to their condition, which initiated proposals from Fife Council to replace the deteriorating buildings with a new single site. The new Dunfermline Learning Campus now brings together students and staff from both schools to a modern, fit-for-purpose and low-carbon facility across 26,666m, making it the UK's largest Passivhaus education building.

LAMILUX put together a bespoke rooflight package design proposal, tailored to the client, comprising of 20 LAMILUX Glass Roof PR60 Passivhaus mono pitch rooflights and a total of 25 LAMILUX Glass Skylight FE Passivhaus rooflights. A full turnkey solution from design detail to installation was commissioned, to collaborate with the Scottish Governments investment to meet the international Passivhaus standard for energy efficiency, whilst supporting Fife Councils demonstration of commitment to forward thinking sustainable education.

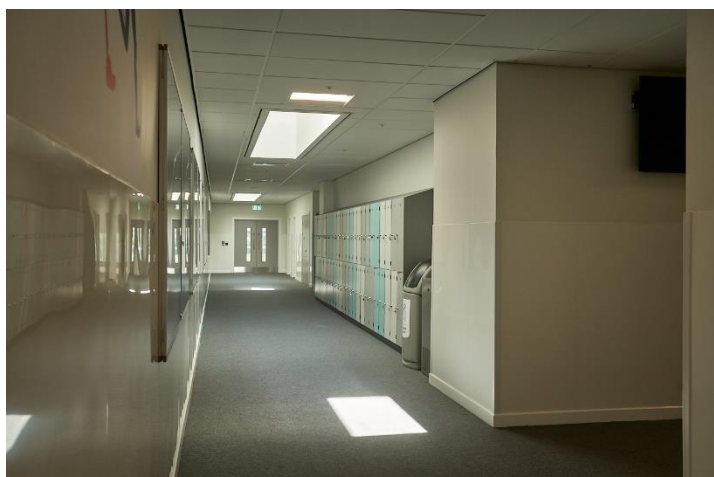




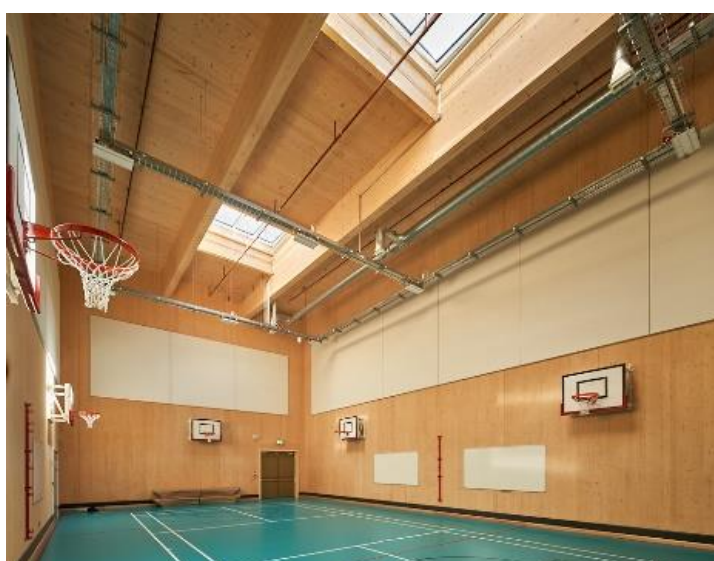
Dunfermline Learning Campus hosts approx. 1,450 students, who started their education within the certified Passivhaus building upon opening in August 2024. The sustainable new campus benefits both pupils and staff members by supporting their wellbeing whilst promoting learning in a comfortable and inspiring environment.



Natural light and integrated ventilation now floods classrooms, corridors and the sports hall to contribute to the creation of a highly performing building that will be stimulating, comfortable and energy efficient, all supporting an improved learning and concentration environment. The Passivhaus concept has a proven track record of energy efficiency, comfort, cost-effectiveness and environmental friendliness. The Passivhaus Institut Darmstadt emphasises, a Passivhaus building requires 75 percent less thermal heat than conventional new buildings.



With triple solar control glazing 50/25, and excellent air tightness values the LAMILUX Glass Roof PR60 Passivhaus mono pitch rooflights were designed to be south facing, to deliver ample daylight, whilst avoiding overheating and ensures a comfortable indoor climate all year round. A Passivhaus building will be warm in the winter and cool in the summer and can benefit from lower running costs and energy bills - typically by 90% compared to a non-Passivhaus building.



Within the planning process, each of the 45 rooflights were carefully considered and designed to be unique in its overall size, number of glass fields, and number of ventilation flaps to ensure that each of the rooms below benefit independently from the right indoor air quality and daylight distribution. The smallest being the LAMILUX Glass Skylight FE Passivhaus modular rooflight measuring a structural roof opening size of 1200 x 1200mm, whilst the largest, a LAMILUX Glass Roof PR60 Passivhaus mono pitch rooflight with a span of 1150mm and length of 7330mm, which was divided into six glass fields, three of which are openable and provides 0.85m² ventilation.

A mixture of 5°, 10° and 54° mono pitch rooflight inclinations were also designed and installed to give the exceptional amount of natural daylight the area below merited, all holding Passivhaus certification as a pHA advanced component.





LAMILUX U.K Ltd, Patron members of the Passivhaus Trust, are delighted to showcase the rooflights designed, manufactured and installed on this stunning and sustainable project on behalf of AHR and Bam Construction Ltd which has been successfully completed and gained certification as a Passivhaus building. The new education facility opened its doors to students on August 21st, 2024. James Fisher, Managing Director of LAMILUX U.K. Ltd testifies “We are proud that we are making an important contribution to people’s health, education and to the health of the planet.” Daniel Boughton, Certified Passivhaus Tradesperson added “More and more architects are focussing on the Passivhaus construction concept, and we are pleased to be part of the journey as we move onto a brighter, and more sustainable future in education and beyond.”

