

# Broiler Poultry Facility, Ireland

Case Study



**CLIENT:**  
Broiler Poultry Facility, Ireland

**CHALLENGE:**  
To provide consistent natural daylight within a large poultry housing facility in line with EU animal welfare standards, while avoiding the uneven lighting and structural limitations associated with traditional side-window solutions.

**RESULTS:**  
The installation delivered uniform daylight distribution throughout the building, supporting animal welfare requirements while reducing reliance on artificial lighting and improving overall building performance.

**PRODUCT:**  
Solatube SolaMaster® Series  
30 Solatube 330 DS (530 diameter system)

**SOLATUBE DISTRIBUTOR:**  
Solalighting Limited

**GENERAL CONTRACTOR:**  
Solalighting Limited

**BACKGROUND:** Across Europe, poultry housing design is increasingly influenced by animal welfare legislation, including the EU Broiler Directive, which requires minimum lighting levels during daylight hours. Natural daylight plays an important role in supporting animal health, behaviour and overall welfare.

Traditional poultry sheds often rely on vertical side windows for daylight. However, these can create inconsistent lighting conditions due to building orientation, seasonal sun position and shading effects. This variability can negatively impact livestock comfort and operational efficiency.

**CHALLENGE:** The client required a reliable daylighting solution capable of delivering consistent natural light throughout the broiler house. Traditional side windows alone could not provide even daylight coverage, particularly in deeper areas of the building.

The solution also needed to maintain building integrity, minimise structural complexity and support the practical demands of a modern agricultural facility.



**SOLUTION:** To address these requirements, 30 Solatube 330 DS Daylighting Systems were installed at roof level. Capturing daylight from above helps provide reliable natural light throughout the building, regardless of orientation or seasonal changes in sun position.

Efficiently transferring natural daylight deep into the interior, creating balanced illumination across the poultry housing environment while reducing the need for artificial lighting during daylight hours.

**RESULTS:** The installation has introduced reliable natural daylight throughout the facility, supporting animal welfare requirements while helping create a more stable environment for livestock.

Additional benefits include:

- More even daylight coverage across the building
- Reduced reliance on artificial lighting
- Improved overall building performance compared with traditional glazing approaches
- Lower operational and energy costs over time
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The project demonstrates how roof-mounted daylighting can provide an effective, energy-efficient alternative to conventional window-based lighting in agricultural applications.

**CONCLUSION:** This project highlights the growing importance of daylighting in modern agricultural building design. By introducing natural daylight from roof level, Solatube systems support animal welfare objectives while improving energy efficiency and operational performance.

The installation provides a practical and scalable solution for poultry housing facilities seeking both regulatory compliance and long-term sustainability.

