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SIMPLIFIED TEST REPORT

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OBJECTIVE

Thermal transmittance calculation of the "DEPLOSUN GLASS-TOP" configuration consisting in a round glass-top dome (frame) with a triple glazing, a steel cylinder filled with insulation material (pipe), and a light diffuser at the bottom.

CALCULATION METHOD

The calculations were carried out in accordance with the European Standards EN-ISO 10077-1:2006/AC:2009 "Thermal performance of windows, doors and shutters - Calculation of thermal transmittance - Part 1: General", EN-ISO 10077-2:2012/AC:2012 "Thermal performance of windows, doors and shutters - Calculation of thermal transmittance - Part 2: Numerical method for frames" and EN-ISO 6946:2007 "Building components and building elements - Thermal resistance and thermal transmittance - Calculation method".

RESULTS:

Frame thermal transmittance in accordance with EN-ISO 10077-2:2012/AC:2012:

$$U_f = 1{,}83\ [W/m^2 \cdot K]$$

Tube wall thermal transmittance in accordance with EN-ISO 6946:2007:

$$U_p = 0{,}44\ [W/m^2 \cdot K]$$

Centre pane of glazing thermal transmittance, 36 mm ($4+4/24_{arg}/4_{be}$), value supplied by the glass manufacturer:

$$U_g = 1{,}20\ [W/m^2 \cdot K]$$

The thermal transmittance of the "DEPLOSUN GLASS-TOP" configuration in accordance with EN-ISO 10077-1:2006/AC:2009 is:

$$U_W = 0{,}74\ [W/m^2 \cdot K]$$

Firmado digitalmente por Barrera Rolla Leandro Miguel

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1. This document has traceability with the calculation report with the same number and date indicated in this document.
2. The results refer exclusively to the sample, product or material described in the complete calculation report.

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