1 Introduction

This document details the thermal performance calculation of the window configuration as detailed below. Results only relate to the size of window tested, 930mm wide x 1935mm high, which is outside of the requirements of EN 14351-1.

The frame profile results detailed below are provided by computer simulation using LBL software program THERM 5.2 and validated against proofs in Annex D (D1 to D10) of BS EN ISO 10077-2:2012. The frame profile results detailed below are provided from methods contained in BS EN ISO 10077-1:2006.

2 Summary of Results

2.1 Frame thermal transmittance (in accordance with BS EN ISO 10077-1: 2006)

Frame Profile	Frame Thermal Transmittance (U_f)
Head	1.2 W/m^{2}K
Sill	1.3 W/m^{2}K
Upper Jambs	1.2 W/m^{2}K
Lower Jambs	1.4 W/m^{2}K
Meeting Rail	2.3 W/m^{2}K

2.2 Linear thermal transmittance (in accordance with BS EN ISO 10077-2: 2012)

Frame Profile	Linear Thermal Transmittance (ψ)
Head	0.035 W/m.K
Sill	0.036 W/m.K
Upper Jambs	0.035 W/m.K
Lower Jambs	0.036 W/m.K
Meeting Rail	0.079 W/m.K

2.3 Centre pane U-Value of glazing calculated in accordance with BS EN 673: 2011

Glazing unit	Centre pane U-value (U_g)
Nominal dimensions 4-8-4-8-4 90% krypton 10% air filled, normal emissivity 0.01 (4mm float, 2 x 8mm Superspacer Premium spacer, 4mm low-e glass)	0.71 W/m^{2}K

2.4 U-Value

The thermal performance of the window (U_W) in accordance with EN ISO 10077-1:2006 is:

1.0 W/m^{2}K

All profile calculations based on BS EN ISO 10077-2:2012