

# Certificate

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**Certificate No:** 54795/2

**Issue No:** 1

**Date of issue:** 16 November 2010

This is to certify that

**BSRIA Limited**

Has tested a sample of the product described below in accordance with the test methods contained within EN 13030 : 2002 and have determined the item met the detailed classification. For further details see Page 2 of this certificate

**Manufacturer/Agent** Skanska - Barts and The London - (Scheldebouw B.V.)

The London Project  
St Philip's House  
Philpot Street  
London  
E1 2JH

**Product** Scheldebouw 3722Y1-01/ 13 Blade louvre with Eurocoil Eliminator

**Test location** BSRIA  
Old Bracknell West  
Bracknell  
Berkshire RG12 7AH

**Date of test** 5 November to 8 November 2010

**Expiry date** 16 November 2013

**Test engineer** M Roper / A Freeth

**Quality approved** Phil Stonard  
Laboratory Manager  
Test & MicroClimate

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## TEST ITEM INFORMATION

<b>Contract</b>	54795A2
<b>Date</b>	05/11/2010
<b>Manufacturer</b>	Scheldebouw B.V.
<b>Louvre Model</b>	3722Y1-01/ 13 Blades
<b>Material</b>	Aluminium
<b>Painted</b>	Yes
<b>Blade Height</b>	1025 mm
<b>Blade Width</b>	1000 mm
<b>Blade Depth</b>	88 mm
<b>Frame Depth</b>	150 mm
<b>No.of Blades</b>	13
<b>Blade Pitch</b>	75 mm
<b>Blade Angle</b>	45 Degrees
<b>No.of Banks</b>	1
<b>Guard Type</b>	Bird
<b>Guard Spacing</b>	40
<b>Side Channels</b>	No
<b>Water Drip Tray</b>	Yes
<b>Blade Orientation</b>	Horizontal
<b>Eliminator Model</b>	Plastic Blade Eliminator
<b>Drawing No.</b>	D 66394/A
<b>No.of Blades</b>	30
<b>Blade Pitch</b>	33 mm
<b>Blade Orientation</b>	Vertical



NOTE: The Eliminator was mounted to the rear of the Louvre by BSRIA staff.

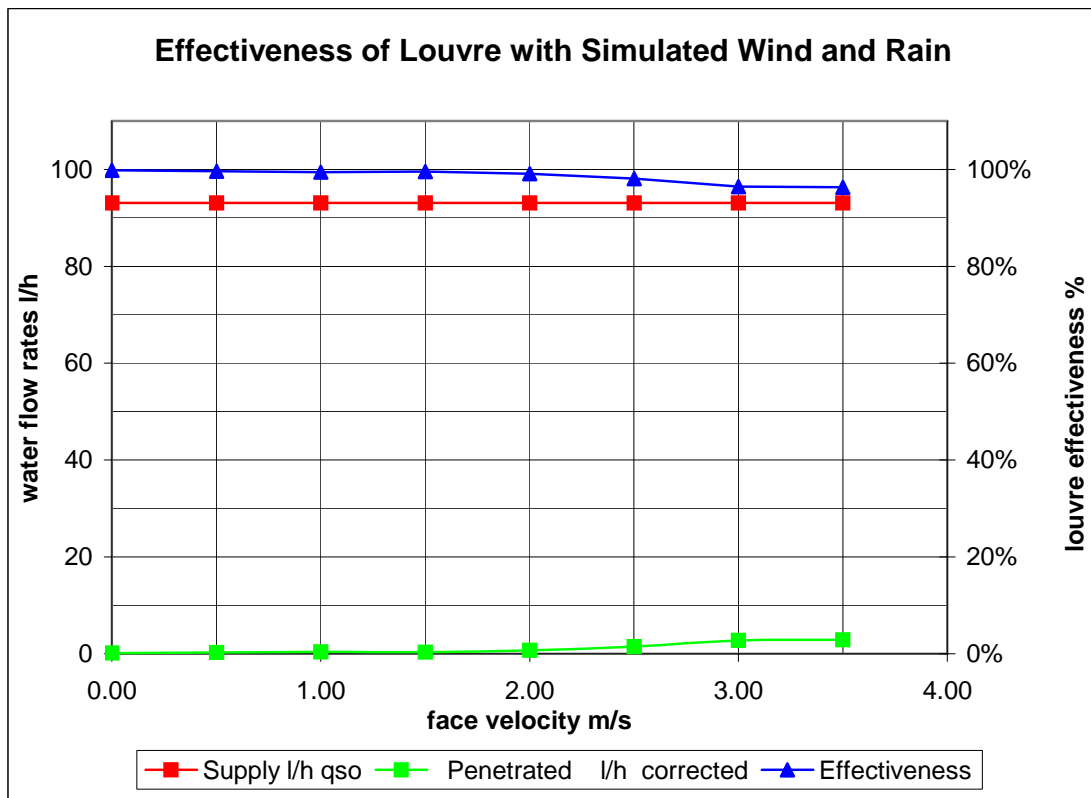
**WATER PENETRATION**

WATER PENETRATION

MANUFACTURER Scheldebouw B.V. Date 05/11/2010  
 MODEL 3722Y1-01/13 with Eliminator Contract 54795

Simulated rainfall 75 mm/hr louvre height 1000 mm  
 Wind speed 13.0 m/s louvre width 1025 mm  
 louvre area 1.025 m<sup>2</sup>

VENTILATION RATE		WATER FLOW RATES		Effectiveness	Class
Volume m <sup>3</sup> /s	Velocity m/s	Supply l/h	Penetrated l/h		
0.00	0.00	93.0	0.1	99.8%	A
0.51	0.50	93.0	0.3	99.6%	A
1.03	1.00	93.0	0.4	99.5%	A
1.54	1.50	93.0	0.3	99.6%	A
2.05	2.00	93.0	0.7	99.1%	A
2.56	2.50	93.0	1.4	98.1%	B
3.07	3.00	93.0	2.7	96.5%	B
3.59	3.50	93.0	2.8	96.3%	B



**COEFFICIENT OF ENTRY OR DISCHARGE**

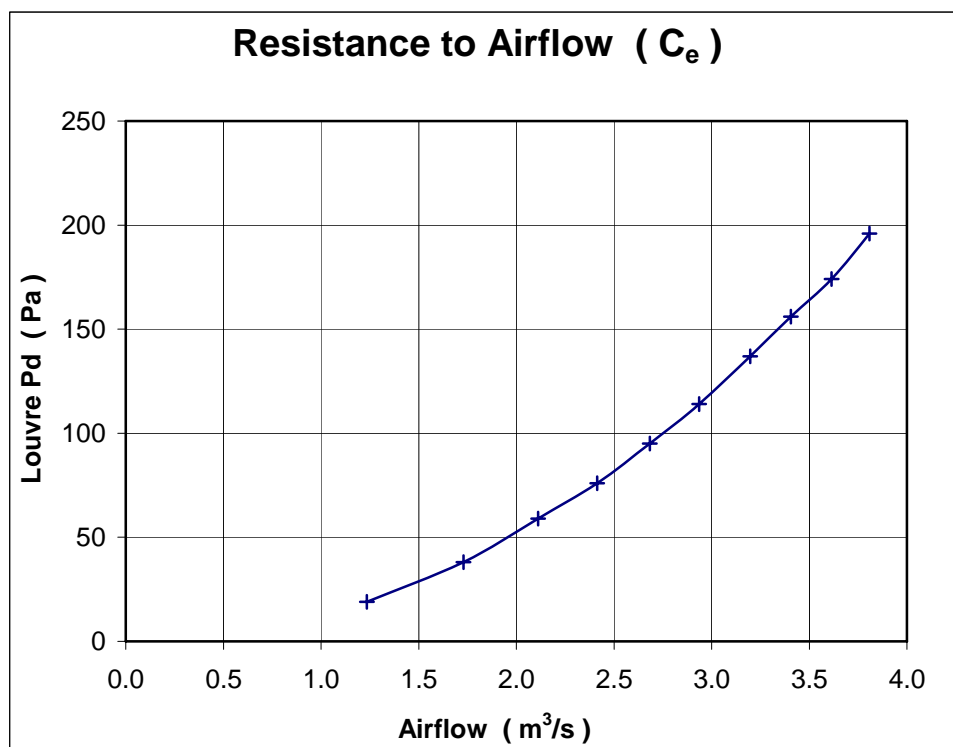
ENTRY LOSS COEFFICIENT

MANUFACTURER Scheldebouw B.V.  
 MODEL 3722Y1-01/13 with Eliminator

Date 05/11/2010  
 Contract 54795

air temperature 16 °C                      louvre height 1000 mm  
 barometer 1013 mbar                      louvre width 1025 mm  
 air density 1.216 kg/m<sup>3</sup>                      louvre area 1.025 m<sup>2</sup>

louvre pd Pascals	louvre face velocity		air flow rate		coefficient C <sub>e</sub>
	m/s		test m <sup>3</sup> /s	theoretical m <sup>3</sup> /s	
196.0	3.71	3.808	18.404	0.207	
174.0	3.53	3.614	17.340	0.208	
156.0	3.32	3.405	16.419	0.207	
137.0	3.12	3.198	15.386	0.208	
114.0	2.86	2.936	14.036	0.209	
95.0	2.62	2.684	12.813	0.209	
76.0	2.36	2.415	11.460	0.211	
59.0	2.06	2.111	10.097	0.209	
38.0	1.69	1.729	8.103	0.213	
19.0	1.21	1.235	5.730	0.216	
mean C <sub>e</sub>				0.210	
Class				3	



## CLASSIFICATION OF WEATHER LOUVRES

Weather louvres shall be classified by their ability to reject simulated rain.

### Penetration Classification

Table 1 shows difference classifications based on the maximum simulated rain penetration per square metre of louvre. The effectiveness is determined in accordance with section 6.1.7.iii.

Water penetration rating at a given louvre face velocity is determined by the water penetration while the louvre is subjected to a  $13 \text{ m}^{-1}$  simulated wind velocity and a simulated rain fall at the nominal rate.

**Table 1 Penetration classification**

Class	Effectiveness	Maximum allowed penetration of simulated rain $\text{l.h}^{-1}.\text{m}^{-2}$
A	1 TO 0,99	0,75
B	0,989 TO 0,95	3,75
C	0,949 TO 0,80	15,0
D	Below 0,8	Greater than 15,0

These classifications apply to various core velocities.

### Discharge Loss Coefficient

The discharge loss coefficient given in Table 2 shall be determined in accordance with section 6.2.4.

**Table 2 Discharge loss coefficient classification**

Class	Discharge Loss Coefficient
1	0,4 and above
2	0,3 to 0,399
3	0,2 to 0,299
4	0,199 and below

(Note: The above also applies to entry loss coefficient)