Summary Report

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Summary Report 54763/3 **Issue No: 1** **Date of issue: 10 October 2018**

This Summary Report confirms that BSRIA Ltd has tested a sample of the product described below in accordance with the test methods contained within EN 13030 : 2001 and have determined the item met the detailed classification shown on pages 3 to 6. For further details of the test item see Page 2 of this Summary Report.

Manufacturer/Agent	N.V. Renson Projects IZ 2 Vijverdam Maalbeekstraat 6 B-8790 Waregem
Product	L.060HF
Test location	BSRIA Old Bracknell West Bracknell Berkshire RG12 7AH
Date of test	10 February 2011
Date of issue	9 October 2018
Test engineer	A Freeth

Quality approved Mark Roper
Principal Test Engineer

This summary report supersedes certificate 54763/3. This up-date was carried out under BSRIA contract reference 61223.

TEST INFORMATION

Contract	54763	
Date	February 2011	
Manufacturer	N.V. Renson Projects	
Louvre Model	L.060HF	
Material	Aluminium	
Painted	No	
Blade Height	1035	mm
Blade Width	1000	mm
Blade Depth	78	mm
Frame Depth	83	mm
No. of Blades	17	
Blade Pitch	60	mm
Blade Angle	45	degrees
No. of Banks	1	
Guard Type	Insect/None	
Guard Spacing	7	mm
Side Channels	None	
Water Drip Tray	Yes	
Blade Orientation	Horizontal	

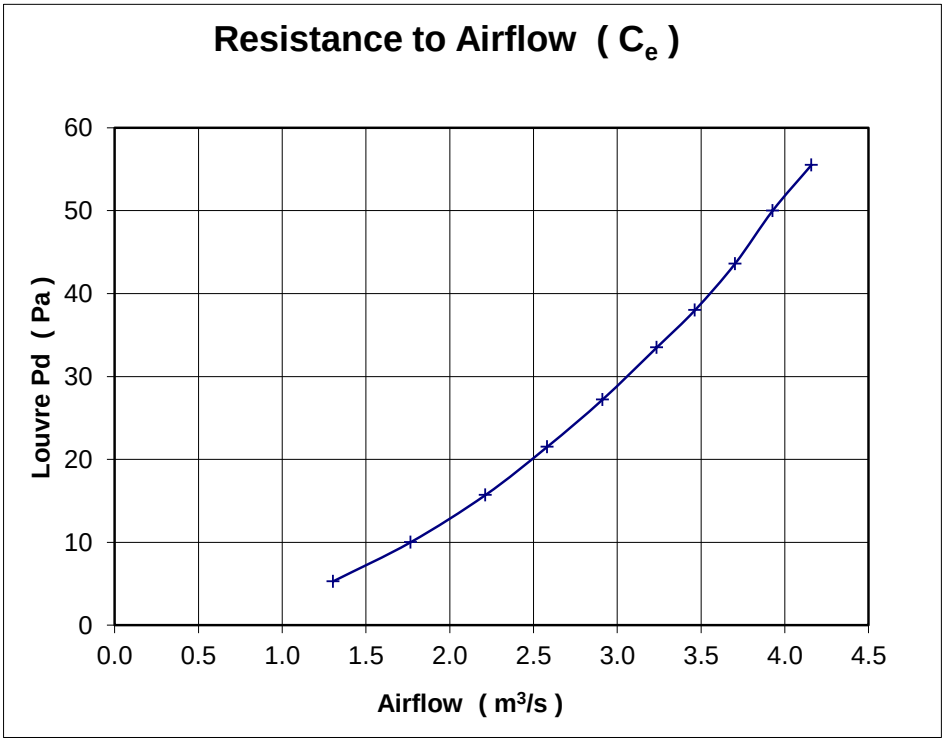
Front view of louvre

COEFFICIENT OF ENTRY (with mesh)

MANUFACTURER Renson Date 10/02/2011
MODEL L.060 HF (2.3mm mesh) Contract 54763

air temperature	13	°C	louvre height	1035	mm
barometer	1009	mbar	louvre width	1000	mm
air density	1.224	kg/m^3	louvre area	1.035	m^2

	louvre face velocity	air flow rate		
louvre pd Pascals	m/s	test m^3/s	theoretical m^3/s	coefficient C_e
55.5	4.02	4.159	9.858	0.422
50.0	3.79	3.927	9.357	0.420
43.6	3.58	3.703	8.738	0.424
38.0	3.35	3.464	8.157	0.425
33.5	3.13	3.236	7.659	0.422
27.2	2.81	2.911	6.901	0.422
21.5	2.49	2.581	6.136	0.421
15.7	2.14	2.213	5.243	0.422
10.0	1.71	1.766	4.185	0.422
5.3	1.26	1.304	3.046	0.428
			mean C_e	0.423
			Class	1

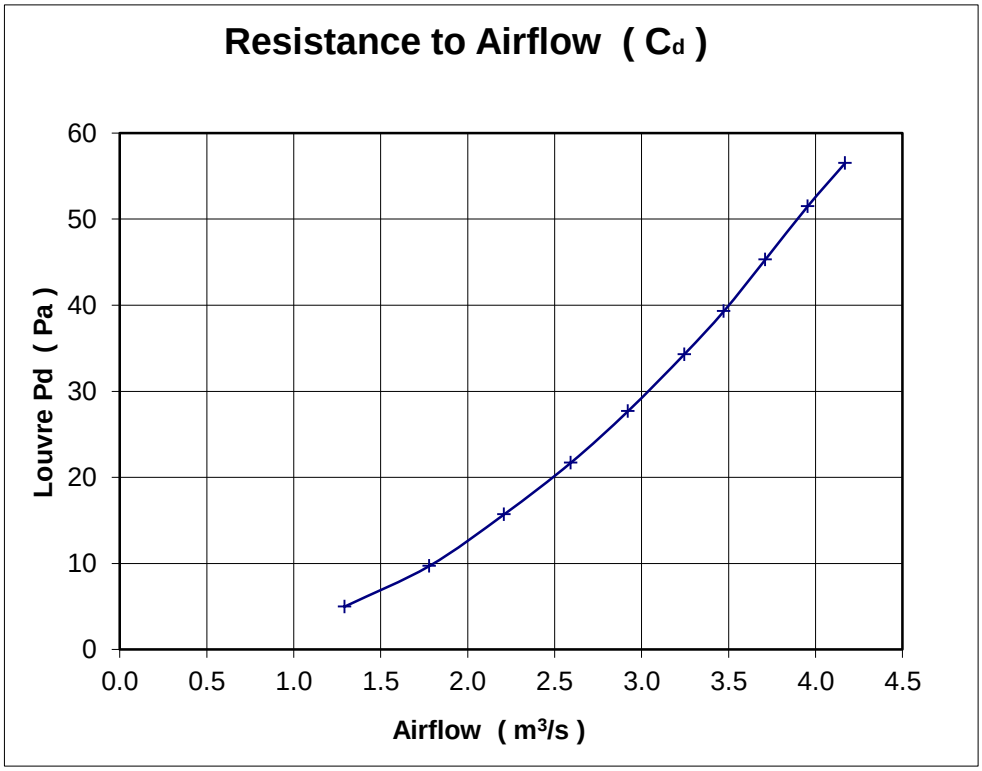


COEFFICIENT OF DISCHARGE (with mesh)

MANUFACTURER Renson Date 10/02/2011
MODEL L.060 HF Reversed (2.3mm mesh) Contract 54763

air temperature	13	°C	louvre height	1035	mm
barometer	1009	mbar	louvre width	1000	mm
air density	1.224	kg/m^3	louvre area	1.035	m^2

	louvre face velocity	air flow rate		
louvre pd Pascals	m/s	test m^3/s	theoretical m^3/s	coefficient Cd
56.5	4.03	4.170	9.947	0.419
51.5	3.82	3.955	9.496	0.416
45.3	3.59	3.711	8.906	0.417
39.3	3.36	3.473	8.296	0.419
34.3	3.14	3.245	7.750	0.419
27.7	2.82	2.922	6.965	0.420
21.7	2.51	2.593	6.164	0.421
15.7	2.13	2.209	5.243	0.421
9.7	1.72	1.779	4.121	0.432
5.0	1.25	1.294	2.959	0.437
			mean Cd	0.422
			Class	1

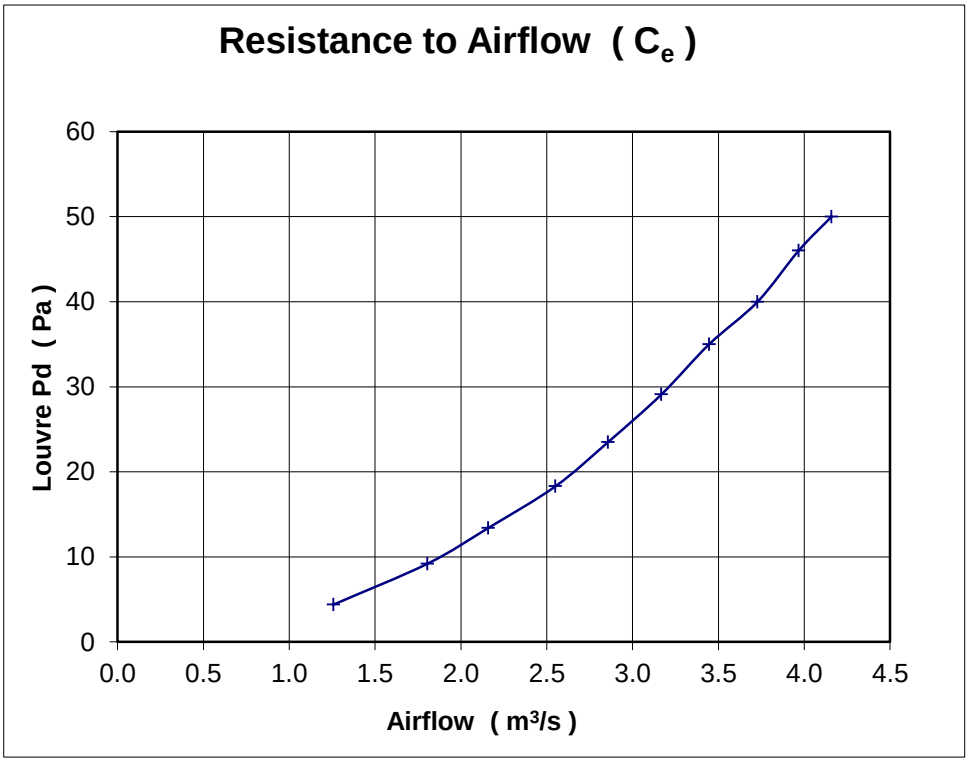


COEFFICIENT OF ENTRY (no mesh)

MANUFACTURER Renson Date 10/02/2011
MODEL L.060 HF (no mesh) Contract 54763

air temperature	13	°C	louvre height	1035	mm
barometer	1009	mbar	louvre width	1000	mm
air density	1.224	kg/m^3	louvre area	1.035	m^2

	louvre face velocity	air flow rate		
louvre pd Pascals	m/s	test m^3/s	theoretical m^3/s	coefficient C_e
50.0	4.02	4.159	9.357	0.444
46.0	3.83	3.967	8.975	0.442
40.0	3.60	3.728	8.369	0.445
35.0	3.33	3.446	7.829	0.440
29.1	3.06	3.168	7.138	0.444
23.5	2.76	2.857	6.415	0.445
18.3	2.46	2.550	5.661	0.451
13.4	2.09	2.159	4.844	0.446
9.2	1.74	1.805	4.014	0.450
4.4	1.22	1.258	2.776	0.453
			mean C_e	0.446
			Class	1

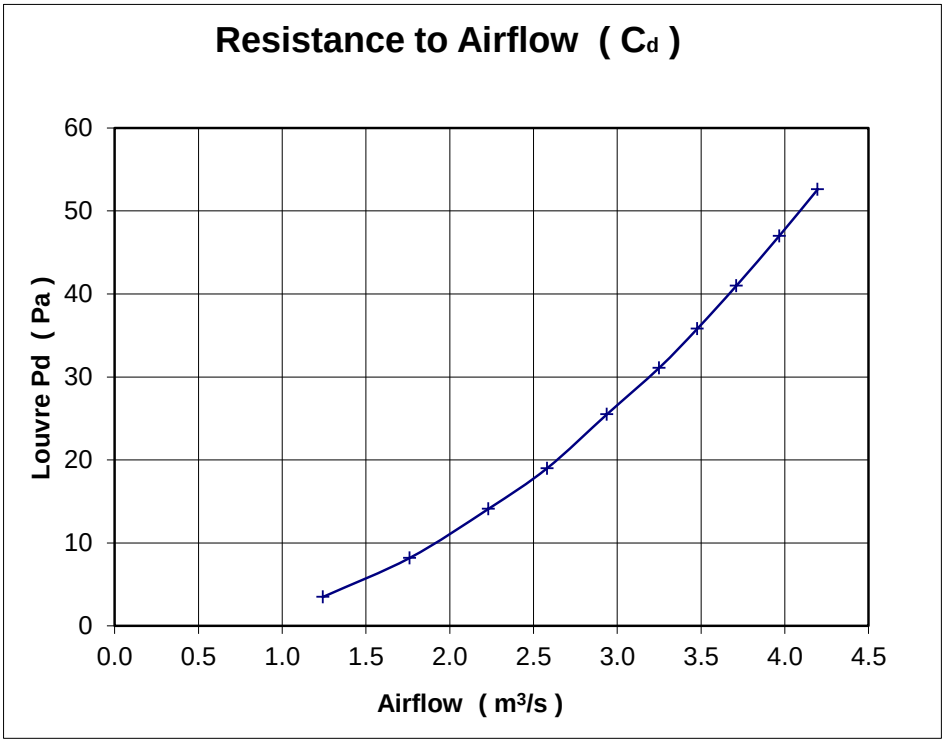


COEFFICIENT OF DISCHARGE (no mesh)

MANUFACTURER Renson Date 10/02/2011
MODEL L.060 HF Reversed (no mesh) Contract 54763

air temperature	13	°C	louvre height	1035	mm
barometer	1009	mbar	louvre width	1000	mm
air density	1.224	kg/m^3	louvre area	1.035	m^2

	louvre face velocity	air flow rate		
louvre pd Pascals	m/s	test m^3/s	theoretical m^3/s	coefficient Cd
52.6	4.05	4.196	9.597	0.437
47.0	3.83	3.967	9.072	0.437
41.0	3.59	3.711	8.473	0.438
35.8	3.36	3.477	7.918	0.439
31.1	3.14	3.250	7.380	0.440
25.5	2.84	2.938	6.682	0.440
19.0	2.49	2.581	5.768	0.447
14.1	2.15	2.230	4.969	0.449
8.2	1.70	1.761	3.789	0.465
3.5	1.20	1.243	2.476	0.502
			mean Cd	0.449
			Class	1



CLASSIFICATION OF WEATHER LOUVRES

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

Penetration Classification

Table 1 shows the different classifications based on the maximum simulated rain penetration per square metre of louvre. The classification is determined in accordance with section 8.2 of EN 13030:2001.

Water penetration rating at a given louvre face velocity is determined by the water penetration while the louvre is subjected to a 13 ms^{-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 $l.h^{-1}.m^{-2}$
A	1,00 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 and Entry Loss Coefficient

The discharge and entry loss coefficient given in Table 2, shall be determined in accordance with section 8.3 of test standard EN13030:2001.

Table 2 Discharge and Entry loss coefficient classification

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