

3 RESULTS

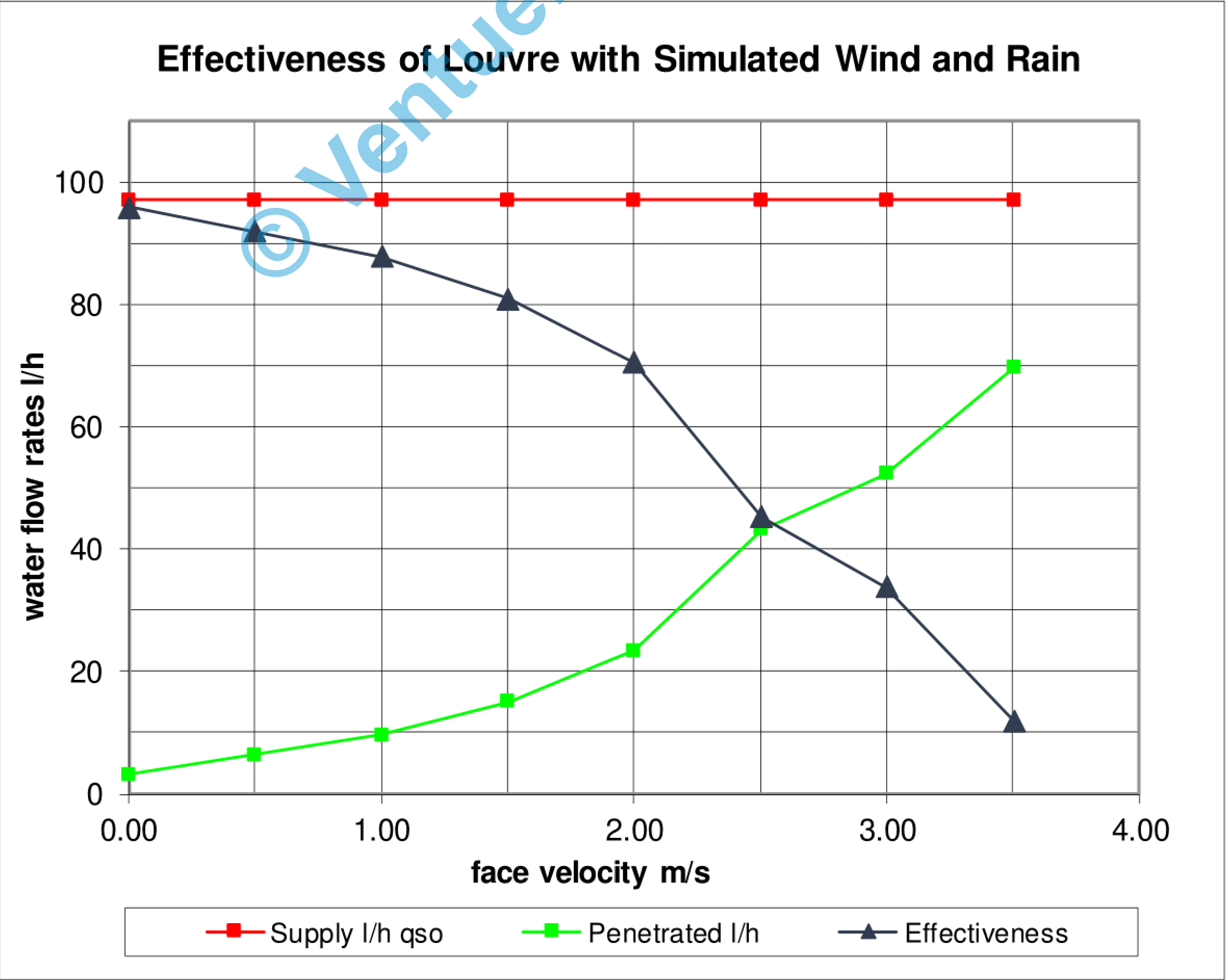
3.1 RAINWATER PENETRATION

Manufacturer Ventuer
Model OL-100S

Date 11/11/2024
Contract 105677

Simulated Rainfall	75 (+10% / -0%)	mm/hr	Core Area Height	933	mm
Wind Speed	13 (+/-10%)	m/s	Core Area Width	955	mm
			Core Area Area	0.891	m ²

Ventilation Rate		Water Flow Rates		Effectiveness %	Class
Volume m ³ /s	Velocity m/s	Supply l/h	Penetrated l/h		
0.00	0.00	97.2	3.2	96.0	B
0.44	0.50	97.2	6.4	92.0	C
0.89	1.00	97.2	9.6	87.9	C
1.34	1.50	97.2	15.0	81.0	C
1.78	2.00	97.2	23.4	70.6	D
2.23	2.50	97.2	43.3	45.3	D
2.67	3.00	97.2	52.4	33.8	D
3.12	3.50	97.2	69.7	12.0	D



3.2 COEFFICIENT OF ENTRY

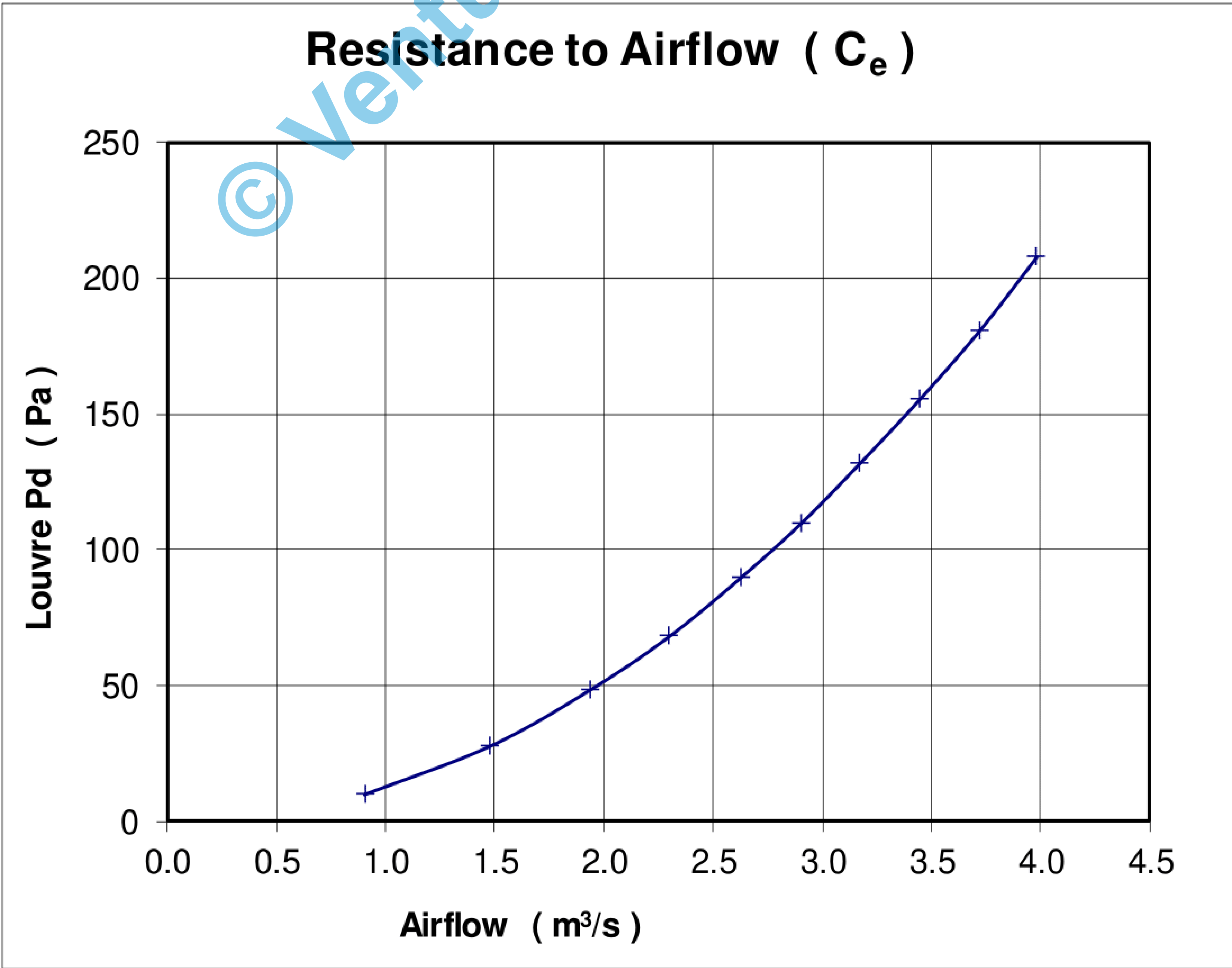
Manufacturer Ventuer
Model OL-100S

Date 14/11/2024
Contract 105677

Air Temperature 18.5 °C
Barometer 1026.0 mbar
Air Density 1.221 kg/m³

Core Area Height 933 mm
Core Area Width 955 mm
Core Area Area 0.891 m²

Louvre p.d. Pa	Louvre Face Velocity	Air Flow Rate		Coefficient C _e
	m/s	Test m³/s	Theoretical m³/s	
10.1	1.02	0.904	3.625	0.250
28.0	1.66	1.481	6.035	0.245
48.5	2.17	1.935	7.943	0.244
68.3	2.58	2.298	9.426	0.244
89.8	2.94	2.624	10.808	0.243
110.0	3.26	2.902	11.962	0.243
132.0	3.56	3.171	13.104	0.242
156.0	3.87	3.450	14.245	0.242
181.0	4.18	3.721	15.344	0.242
208.0	4.47	3.981	16.449	0.242
Mean C _e				0.244
Class				3



A ‘trendline’ for the above graph would follow $y = 12.512x^{2.0388}$

3.3 COEFFICIENT OF DISCHARGE

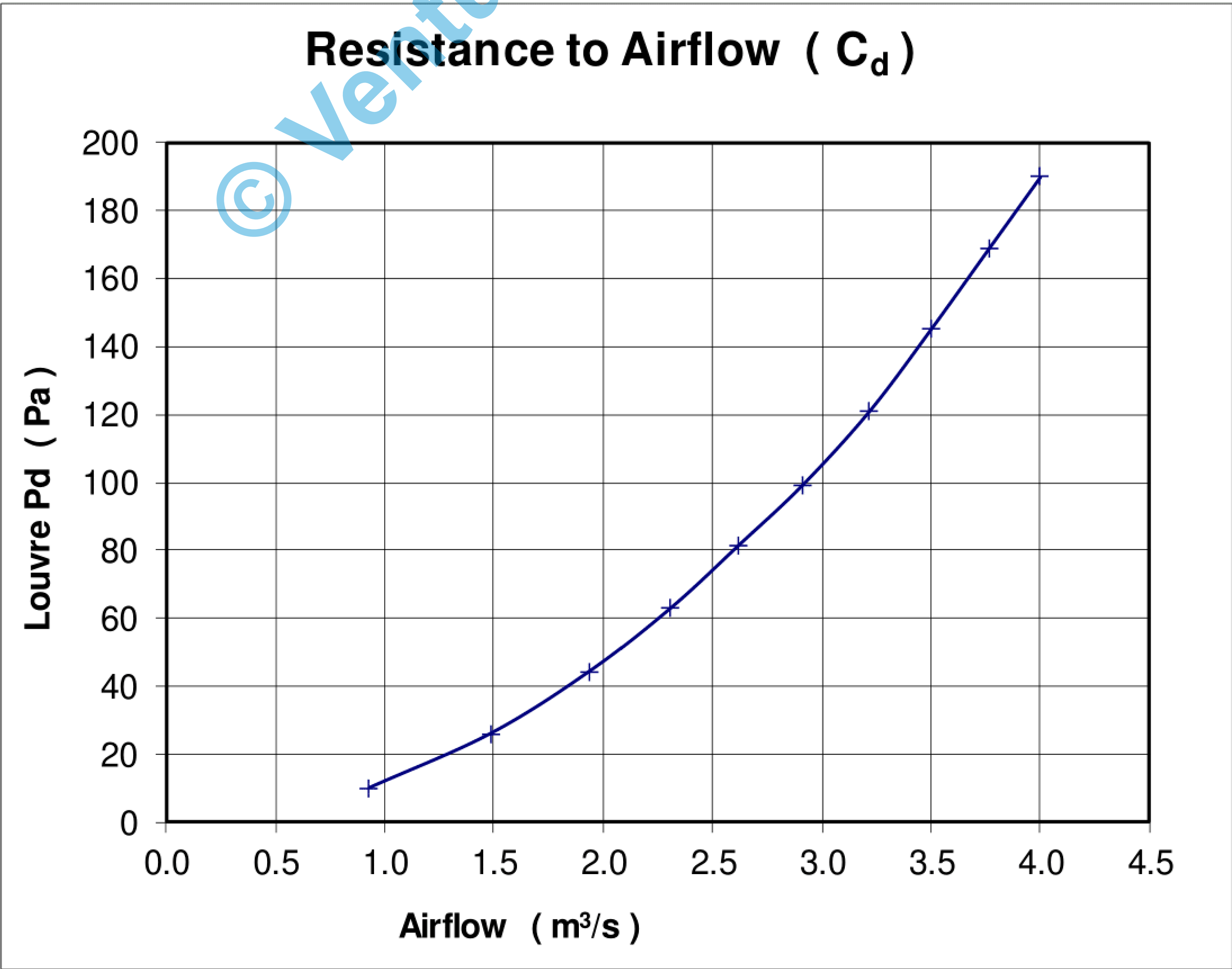
Manufacturer Ventuer
Model OL-100S

Date 14/11/2024
Contract 105677

Air Temperature 19.1 °C
Barometer 1025.7 mbar
Air Density 1.218 kg/m³

Core Area Height 933 mm
Core Area Width 955 mm
Core Area Area 0.891 m²

Louvre p.d. Pa	Louvre Face Velocity	Air Flow Rate		Coefficient C _d
	m/s	Test m³/s	Theoretical m³/s	
10.0	1.04	0.928	3.611	0.257
26.0	1.66	1.483	5.822	0.255
44.4	2.17	1.937	7.609	0.255
63.0	2.59	2.308	9.063	0.255
81.6	2.94	2.621	10.315	0.254
99.2	3.27	2.911	11.373	0.256
121.0	3.61	3.219	12.561	0.256
145.0	3.93	3.499	13.750	0.254
169.0	4.23	3.767	14.844	0.254
190.0	4.49	4.001	15.740	0.254
Mean C _d				0.255
Class				3



x
A 'trendline' for the above graph would follow $y = 11.703x^{2.0091}$