

3 RESULTS

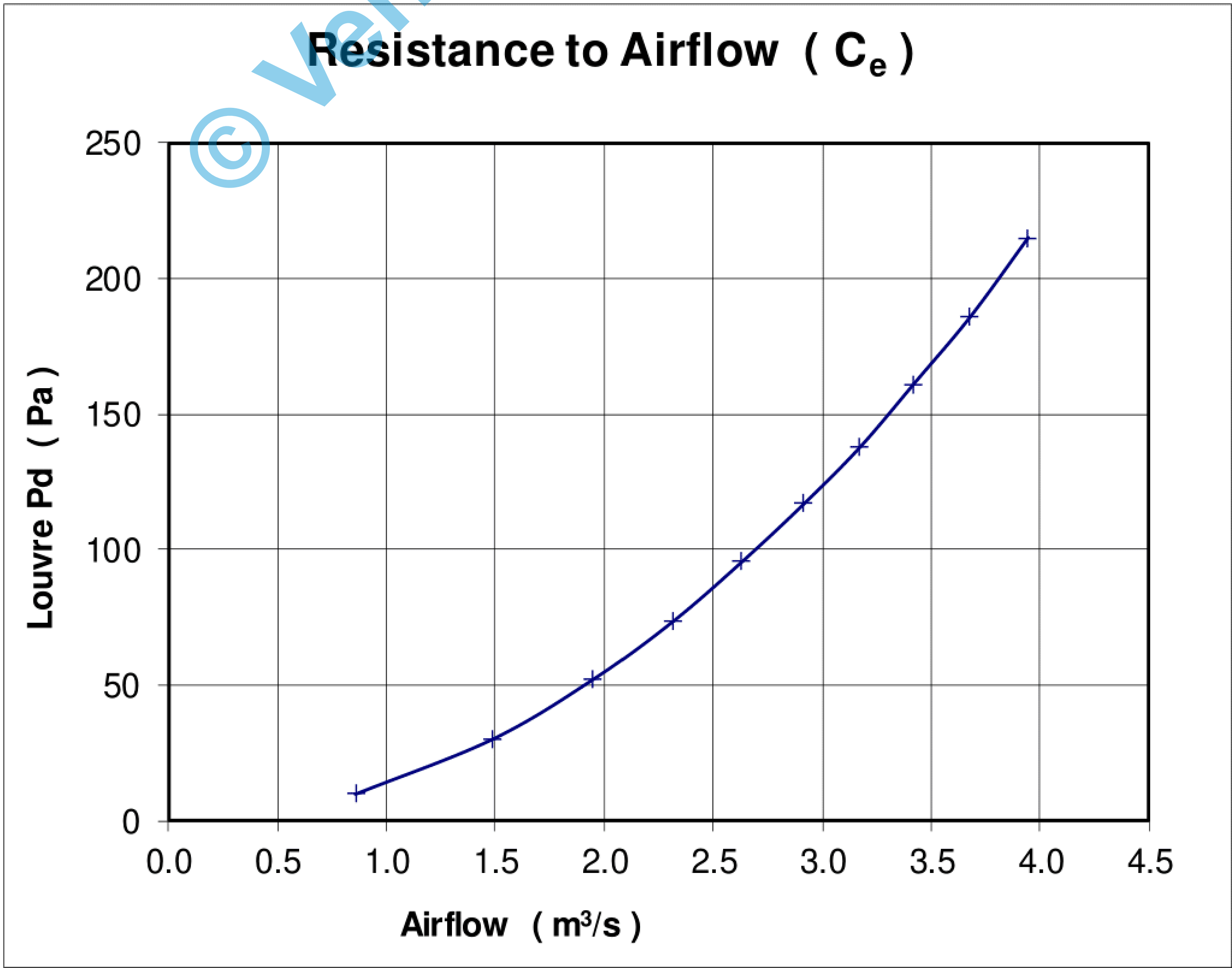
3.1 COEFFICIENT OF ENTRY

Manufacturer Ventuer  
Model AL-600W

Date 15/11/2024  
Contract 105677

Air Temperature	17.9	°C	Core Area Height	995	mm
Barometer	1018.8	mbar	Core Area Width	994	mm
Air Density	1.215	kg/m <sup>3</sup>	Core Area Area	0.989	m <sup>2</sup>

Louvre p.d. Pa	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	
10.0	0.87	0.859	4.013	0.214
30.2	1.50	1.487	6.975	0.213
52.2	1.97	1.948	9.170	0.212
73.4	2.34	2.311	10.874	0.213
95.6	2.66	2.630	12.409	0.212
117.0	2.95	2.915	13.728	0.212
138.0	3.21	3.174	14.909	0.213
161.0	3.46	3.417	16.104	0.212
186.0	3.72	3.679	17.309	0.213
215.0	3.99	3.943	18.610	0.212
Mean C <sub>e</sub>				0.213
Class				3



A 'trendline' for the above graph would follow  $y = 13.61x^{2.0104}$

3.2 COEFFICIENT OF DISCHARGE

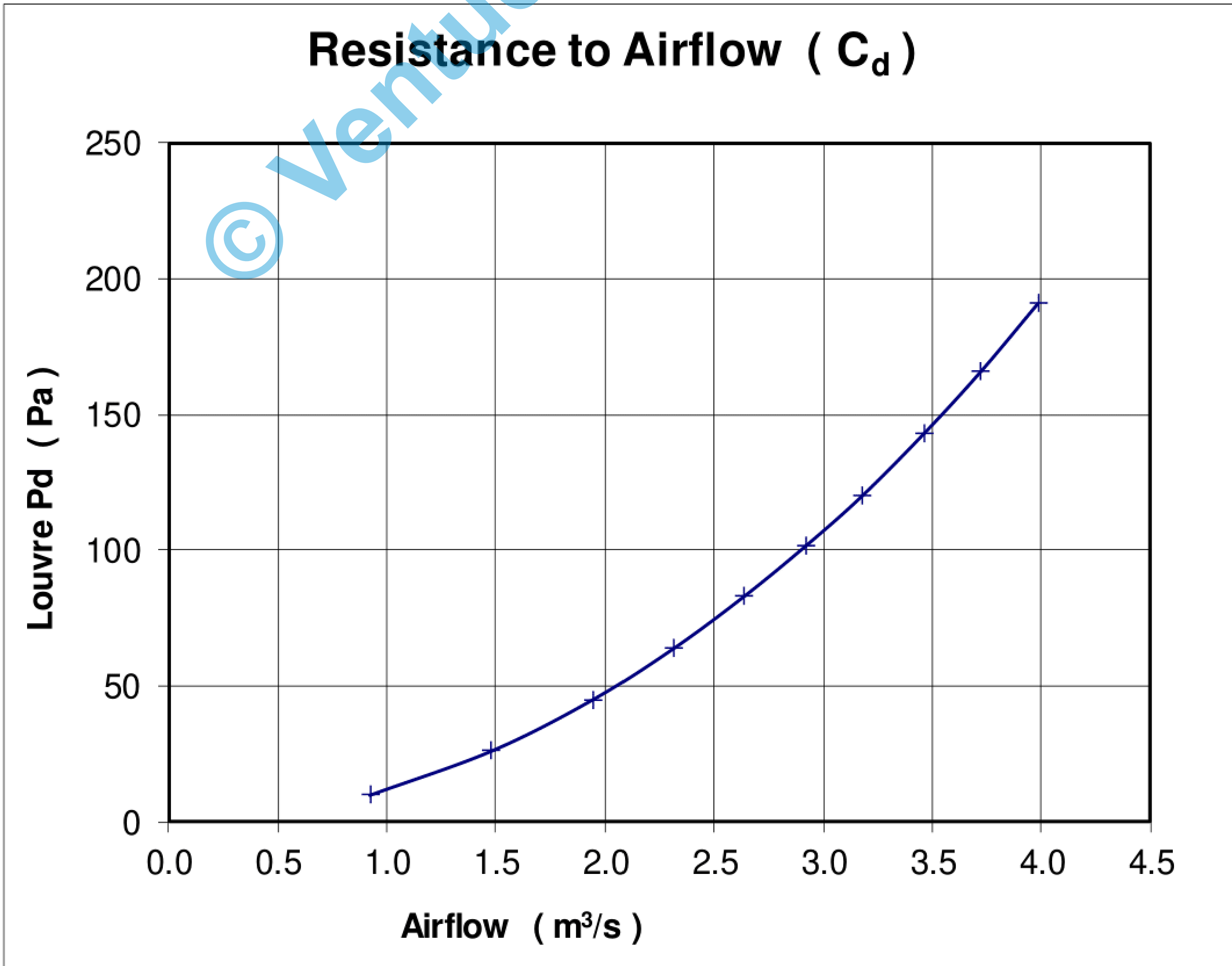
Manufacturer Ventuer  
Model AL-600W

Date 15/11/2024  
Contract 105677

Air Temperature18.5 °C  
Barometer1018.3 mbar  
Air Density1.212 kg/m³

Core Area Height995 mm  
Core Area Width994 mm  
Core Area Area0.989 m²

Louvre p.d. Pa	Louvre Face Velocity	Air Flow Rate		Coefficient C <sub>d</sub>
	m/s	Test m³/s	Theoretical m³/s	
10.1	0.93	0.921	4.038	0.228
26.4	1.50	1.482	6.529	0.227
45.1	1.96	1.942	8.534	0.228
64.0	2.34	2.314	10.166	0.228
83.3	2.67	2.639	11.598	0.228
102.0	2.96	2.924	12.834	0.228
120.0	3.21	3.178	13.920	0.228
143.0	3.50	3.463	15.196	0.228
166.0	3.77	3.726	16.372	0.228
191.0	4.03	3.988	17.562	0.227
Mean C <sub>d</sub>				0.228
Class				3



A ‘trendline’ for the above graph would follow  $y = 11.942x^{2.0007}$