Akan pagina 19

Distribuiçao adimensional acumulada de chuva de

tempo (h)	Tipo I P/ Pr	Tipo IA P/ Pr	Tipo II P/ Pr	Tipo III P/ Pr
0.0	0.000	0.000	0.000	0.000
0.5	0.008	0.010	0.005	0.005
1.0	0.017	0.022	0.011	0.010
1.5	0.026	0.036	0.017	0.015
2.0	0.035	0.051	0.023	0.020
2.5	0.045	0.067	0.029	0.026
3.0	0.055	0.083	0.035	0.032
3.5	0.065	0.099	0.041	0.037
4.0	0.076	0.116	0.048	0.043
4.5	0.087	0.135	0.056	0.050
5.0	0.099	0.156	0.064	0.057
5.5	0.112	0.179	0.072	0.065
6.0	0.126	0.204	0.080	0.072
6.5	0.140	0.233	0.090	0.081
7.0	0.156	0.268	0.100	0.089
7.5	0.174	0.310	0.110	0.102
8.0	0.194	0.425	0.120	0.115
8.5	0.219	0.480	0.133	0.130
9.0	0.254	0.520	0.147	0.148
9.5	0.303	0.550	0.163	0.167
10.0	0.515	0.577	0.181	0.189
10.5	0.583	0.601	0.203	0.216
11.0	0.624	0.623	0.236	0.250
11.5	0.655	0.644	0.283	0.298
12.0	0.682	0.664	0.663	0.500
12.5	0.706	0.683	0.735	0.702
13.0	0.728	0.701	0.776	0.751
13.5	0.748	0.719	0.804	0.785
14.0	0.766	0.736	0.825	0.811
14.5	0.783	0.753	0.842	0.830
15.0	0.799	0.769	0.856	0.848
15.5	0.815	0.785	0.869	0.867
16.0	0.830	0.800	0.881	0.886
16.5	0.844	0.815	0.893	0.895
17.0	0.857	0.830	0.903	0.904
17.5	0.870	0.844	0.913	0.913
18.0	0.882	0.858	0.922	0.922
18.5	0.893	0.871	0.930	0.930
19.0	0.905	0.884	0.938	0.939
19.5	0.916	0.896	0.946	0.948
20.0	0.926	0.908	0.953	0.957

20.5	0.936	0.920	0.959	0.962
21.0	0.946	0.932	0.965	0.968
21.5	0.956	0.944	0.971	0.973
22.0	0.965	0.956	0.977	0.979
22.5	0.974	0.967	0.983	0.984
23.0	0.983	0.978	0.989	0.989
23.5	0.992	0.989	0.995	0.995
24.0	**1.000**	**1.000**	**1.000**	**1.000**

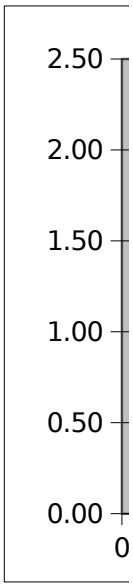
Chuva de 24h
Tr=25anos Martinez e Magni, 1999 Pr=123mm

tempo (h)	**Tipo I P/ Pr**	**Tipo IA P/ Pr**	**Tipo II P/ Pr**	**Tipo III P/ Pr**
0.0	0.000	0.000	0.000	0.000
0.5	0.008	0.010	0.005	0.005
1.0	0.017	0.022	0.011	0.010
1.5	0.026	0.036	0.017	0.015
2.0	0.035	0.051	0.023	0.020
2.5	0.045	0.067	0.029	0.026
3.0	0.055	0.083	0.035	0.032
3.5	0.065	0.099	0.041	0.037
4.0	0.076	0.116	0.048	0.043
4.5	0.087	0.135	0.056	0.050
5.0	0.099	0.156	0.064	0.057
5.5	0.112	0.179	0.072	0.065
6.0	0.126	0.204	0.080	0.072
6.5	0.140	0.233	0.090	0.081
7.0	0.156	0.268	0.100	0.089
7.5	0.174	0.310	0.110	0.102
8.0	0.194	0.425	0.120	0.115
8.5	0.219	0.480	0.133	0.130
9.0	0.254	0.520	0.147	0.148
9.5	0.303	0.550	0.163	0.167
10.0	0.515	0.577	0.181	0.189
10.5	0.583	0.601	0.203	0.216
11.0	0.624	0.623	0.236	0.250
11.5	0.655	0.644	0.283	0.298
12.0	0.682	0.664	0.663	0.500
12.5	0.706	0.683	0.735	0.702
13.0	0.728	0.701	0.776	0.751
13.5	0.748	0.719	0.804	0.785
14.0	0.766	0.736	0.825	0.811
14.5	0.783	0.753	0.842	0.830
15.0	0.799	0.769	0.856	0.848

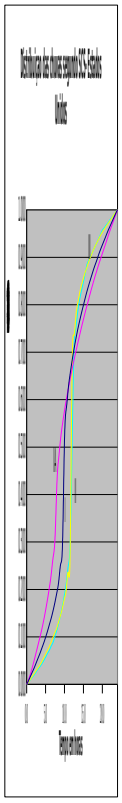
15.5	0.815	0.785	0.869	0.867
16.0	0.830	0.800	0.881	0.886
16.5	0.844	0.815	0.893	0.895
17.0	0.857	0.830	0.903	0.904
17.5	0.870	0.844	0.913	0.913
18.0	0.882	0.858	0.922	0.922
18.5	0.893	0.871	0.930	0.930
19.0	0.905	0.884	0.938	0.939
19.5	0.916	0.896	0.946	0.948
20.0	0.926	0.908	0.953	0.957
20.5	0.936	0.920	0.959	0.962
21.0	0.946	0.932	0.965	0.968
21.5	0.956	0.944	0.971	0.973
22.0	0.965	0.956	0.977	0.979
22.5	0.974	0.967	0.983	0.984
23.0	0.983	0.978	0.989	0.989
23.5	0.992	0.989	0.995	0.995
24.0	**1.000**	**1.000**	**1.000**	**1.000**

minutos	Ordem	Intervalo horas	HUFF 1. Q (%)	acumulado	
2.5	1	0.04	0.03	0.03	0.04
4.0	2	0.08	0.03	0.06	0.08
6.5	3	0.13	0.036	0.096	0.13
9.0	4	0.17	0.036	0.132	0.17
11.5	5	0.21	0.061	0.193	0.21
14.0	6	0.25	0.061	0.254	0.25
16.5	7	0.29	0.076	0.33	0.29
19.0	8	0.33	0.076	0.406	0.33
21.5	9	0.38	0.052	0.458	0.38
24.0	10	0.42	0.052	0.51	0.42
26.5	11	0.46	0.052	0.562	0.46
29.0	12	0.50	0.052	0.614	0.50
31.5	13	0.54	0.033	0.647	0.54
34.0	14	0.58	0.032	0.679	0.58
36.5	15	0.63	0.026	0.705	0.63
39.0	16	0.67	0.025	0.73	0.67
41.5	17	0.71	0.022	0.752	0.71
44.0	18	0.75	0.021	0.773	0.75
46.5	19	0.79	0.014	0.787	0.79
49.0	20	0.83	0.014	0.801	0.83
51.5	21	0.88	0.014	0.815	0.88
54.0	22	0.92	0.014	0.829	0.92
56.5	23	0.96	0.013	0.842	0.96
59.0	24	1.00	0.012	0.854	1.00
61.5	25	1.04	0.012	0.866	1.04

64.0		26	1.08	0.012	0.878	1.08
66.6		27	1.13	0.011	0.889	1.13
69.1		28	1.17	0.011	0.9	1.17
71.6		29	1.21	0.008	0.908	1.21
74.1		30	1.25	0.008	0.916	1.25
76.6		31	1.29	0.006	0.922	1.29
79.1		32	1.33	0.006	0.928	1.33
81.6		33	1.38	0.006	0.934	1.38
84.1		34	1.42	0.006	0.94	1.42
86.6		35	1.46	0.006	0.946	1.46
89.1		36	1.50	0.006	0.952	1.50
91.6		37	1.54	0.006	0.958	1.54
94.1		38	1.58	0.006	0.964	1.58
96.6		39	1.63	0.006	0.97	1.63
99.1		40	1.67	0.006	0.976	1.67
101.6		41	1.71	0.004	0.98	1.71
104.1		42	1.75	0.004	0.984	1.75
106.6		43	1.79	0.004	0.988	1.79
109.1		44	1.83	0.004	0.992	1.83
111.6		45	1.88	0.002	0.994	1.88
114.1		46	1.92	0.002	0.996	1.92
116.6		47	1.96	0.002	0.998	1.96
119.1		48	2.00	0.002	1	2.00
121.6	soma			1		
124.1						
126.6						
129.1						



24h do SCS (1986)

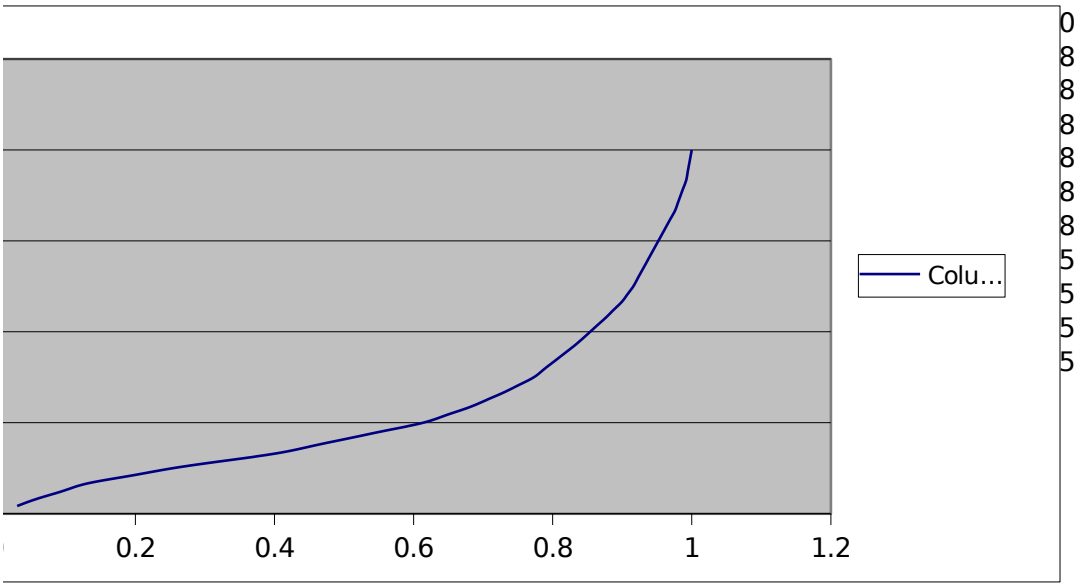


Tipo I P	Tipo IA P	Tipo II P	Tipo III P	Tipo I ietograma	Tipo IA ietograma
0	0	0	0	0.00	0.00
0.984	1.23	0.615	0.615	0.98	1.23
2.091	2.706	1.353	1.23	1.11	1.48
3.198	4.428	2.091	1.845	1.11	1.72
4.305	6.273	2.829	2.46	1.11	1.84
5.535	8.241	3.567	3.198	1.23	1.97
6.765	10.209	4.305	3.936	1.23	1.97
7.995	12.177	5.043	4.551	1.23	1.97
9.348	14.268	5.904	5.289	1.35	2.09
10.701	16.605	6.888	6.15	1.35	2.34
12.177	19.188	7.872	7.011	1.48	2.58
13.776	22.017	8.856	7.995	1.60	2.83
15.498	25.092	9.84	8.856	1.72	3.07
17.22	28.659	11.07	9.963	1.72	3.57
19.188	32.964	12.3	10.947	1.97	4.30
21.402	38.13	13.53	12.546	2.21	5.17
23.862	52.275	14.76	14.145	2.46	14.14
26.937	59.04	16.359	15.99	3.07	6.77
31.242	63.96	18.081	18.204	4.31	4.92
37.269	67.65	20.049	20.541	6.03	3.69
63.345	70.971	22.263	23.247	26.08	3.32
71.709	73.923	24.969	26.568	8.36	2.95
76.752	76.629	29.028	30.75	5.04	2.71
80.565	79.212	34.809	36.654	3.81	2.58
83.886	81.672	81.549	61.5	3.32	2.46
86.838	84.009	90.405	86.346	2.95	2.34
89.544	86.223	95.448	92.373	2.71	2.21
92.004	88.437	98.892	96.555	2.46	2.21
94.218	90.528	101.475	99.753	2.21	2.09
96.309	92.619	103.566	102.09	2.09	2.09
98.277	94.587	105.288	104.304	1.97	1.97

100.245	96.555	106.887	106.641	1.97	1.97
102.09	98.4	108.363	108.978	1.84	1.84
103.812	100.245	109.839	110.085	1.72	1.84
105.411	102.09	111.069	111.192	1.60	1.84
107.01	103.812	112.299	112.299	1.60	1.72
108.486	105.534	113.406	113.406	1.48	1.72
109.839	107.133	114.39	114.39	1.35	1.60
111.315	108.732	115.374	115.497	1.48	1.60
112.668	110.208	116.358	116.604	1.35	1.48
113.898	111.684	117.219	117.711	1.23	1.48
115.128	113.16	117.957	118.326	1.23	1.48
116.358	114.636	118.695	119.064	1.23	1.48
117.588	116.112	119.433	119.679	1.23	1.48
118.695	117.588	120.171	120.417	1.11	1.48
119.802	118.941	120.909	121.032	1.11	1.35
120.909	120.294	121.647	121.647	1.11	1.35
122.016	121.647	122.385	122.385	1.11	1.35
123	123	123	123	0.98	1.35
				123.00	123.00

0.0	0.00	0.00
1.0	0.98	1.23
1.1	1.11	1.48
1.1	1.11	1.72
1.1	1.11	1.85
1.2	1.23	1.97
1.2	1.23	1.97
1.2	1.23	1.97
1.4	1.35	2.09
1.4	1.35	2.34
1.5	1.48	2.58
1.6	1.60	2.83
1.7	0.49	3.08
1.7	2.95	3.57
2.0	1.97	4.31
2.2	2.21	5.17
2.5	2.46	14.15
3.1	3.08	6.77
4.3	4.31	4.92
6.0	6.03	3.69
26.1	26.08	3.32
8.4	8.36	2.95
5.0	5.04	2.71
3.8	3.81	2.58
3.3	3.32	2.46
3.0	2.95	2.34
2.7	2.71	2.21
2.5	2.46	2.21
2.2	2.21	2.09
2.1	2.09	2.09

2.0	1.97	1.97
2.0	1.97	1.97
1.8	1.85	1.85
1.7	1.72	1.84
1.6	1.60	1.85
1.6	1.60	1.72
1.5	1.48	1.72
1.4	1.35	1.60



Tipo II ietograma	Tipo III ietograma
0.00	0.00
0.62	0.62
0.74	0.62
0.74	0.62
0.74	0.62
0.74	0.74
0.74	0.74
0.74	0.62
0.86	0.74
0.98	0.86
0.98	0.86
0.98	0.98
0.98	0.86
1.23	1.11
1.23	0.98
1.23	1.60
1.23	1.60
1.60	1.84
1.72	2.21
1.97	2.34
2.21	2.71
2.71	3.32
4.06	4.18
5.78	5.90
46.74	24.85
8.86	24.85
5.04	6.03
3.44	4.18
2.58	3.20
2.09	2.34
1.72	2.21

1.60	2.34
1.48	2.34
1.48	1.11
1.23	1.11
1.23	1.11
1.11	1.11
0.98	0.98
0.98	1.11
0.98	1.11
0.86	1.11
0.74	0.61
0.74	0.74
0.74	0.62
0.74	0.74
0.74	0.61
0.74	0.62
0.74	0.74
0.61	0.61
123.00	123.00

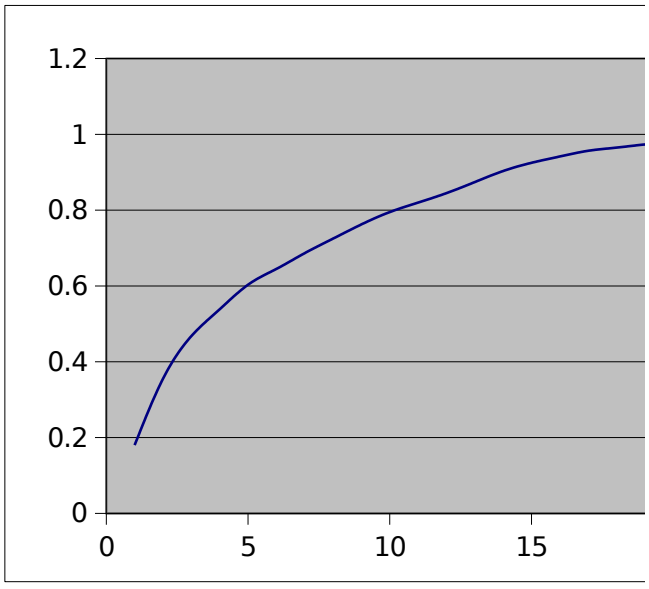
0.00	0.00
0.62	0.62
0.74	0.62
0.74	0.62
0.74	0.62
0.74	0.74
0.74	0.74
0.74	0.62
0.86	0.74
0.98	0.86
0.98	0.86
0.98	0.98
0.98	0.86
1.23	1.11
1.23	0.98
1.23	1.60
1.23	1.60
1.60	1.85
1.72	2.21
1.97	2.34
2.21	2.71
2.71	3.32
4.06	4.18
5.78	5.90
46.74	24.85
8.86	24.85
5.04	6.03
3.44	4.18
2.58	3.20
2.09	2.34

1.72	2.21
1.60	2.34
1.48	2.34
1.48	1.11
1.23	1.11
1.23	1.11
1.11	1.11
0.98	0.98
0.98	1.11
0.98	1.11
0.86	1.11
0.74	0.61
0.74	0.74
0.74	0.62
0.74	0.74
0.74	0.61
0.74	0.62
0.74	0.74
0.61	0.61

chuva de 24horas		Acum.
Tempo (horas)	**Fraçao Magni,1986**	
1	0.180	0.180
2	0.175	0.355
3	0.113	0.467
4	0.071	0.538
5	0.065	0.603
6	0.042	0.645
7	0.042	0.687
8	0.038	0.725
9	0.038	0.763
10	0.033	0.795
11	0.025	0.820
12	0.025	0.845
13	0.029	0.874
14	0.029	0.903
15	0.022	0.925
16	0.017	0.942
17	0.015	0.957
18	0.008	0.965
19	0.008	0.973
20	0.005	0.978
21	0.004	0.983
22	0.006	0.988
23	0.008	0.997
24	0.01	1.005
Soma=	1.000	

chuva de 24horas de Magni, 1986

horas	acumulado
1	0.18
2	0.355
3	0.4675
4	0.538333
5	0.603333
6	0.645
7	0.686667
8	0.725
9	0.7625
10	0.795
11	0.82
12	0.845
13	0.874167
14	0.903333
15	0.925
16	0.941667
17	0.956667
18	0.965
19	0.973333
20	0.978333
21	0.9825
22	0.988333
23	0.996667



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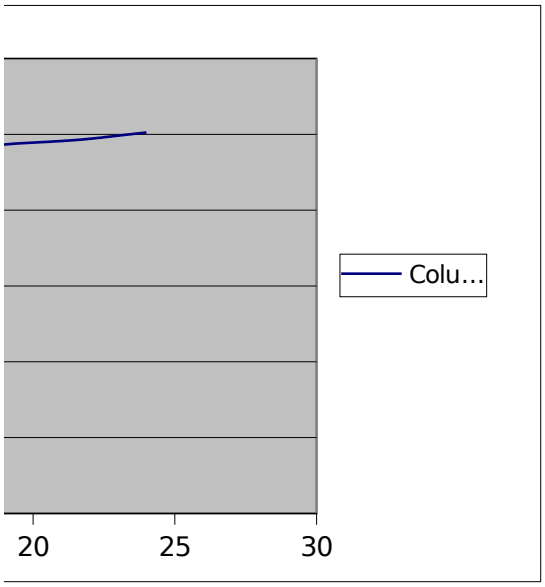
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