L / ΔL Infeldschwellen-Kontrast

Richter, K. (1993), CIE proceedings, Advanced Colorimetry, p. 79−84, CIE3

$L^* = V\,(L_s/s)^n[(1-s+s\,L/L_s)^n-1]$ [1]

$n = -0{,}25$ [2]

$V = 1/(0{,}036\,n\,L_u^{-0{,}30})$ [3]

$L_s = 0{,}025\,L_u^{0{,}705}$ [4]

$s = 1/[1+(\,n\,V\,L_s^n)^{1/(1-n)}]$ [5]

$L_u = 0{,}1;\ 1;\ 10;\ 100;\ 1000\ \mathrm{cd/m^2}$ [6]

$dL=[1/nV][L_s/s]^{1-n}[1-s+s\,L/L_s]^{1-n}$ [7]

Umfeld-Leuchtdichte

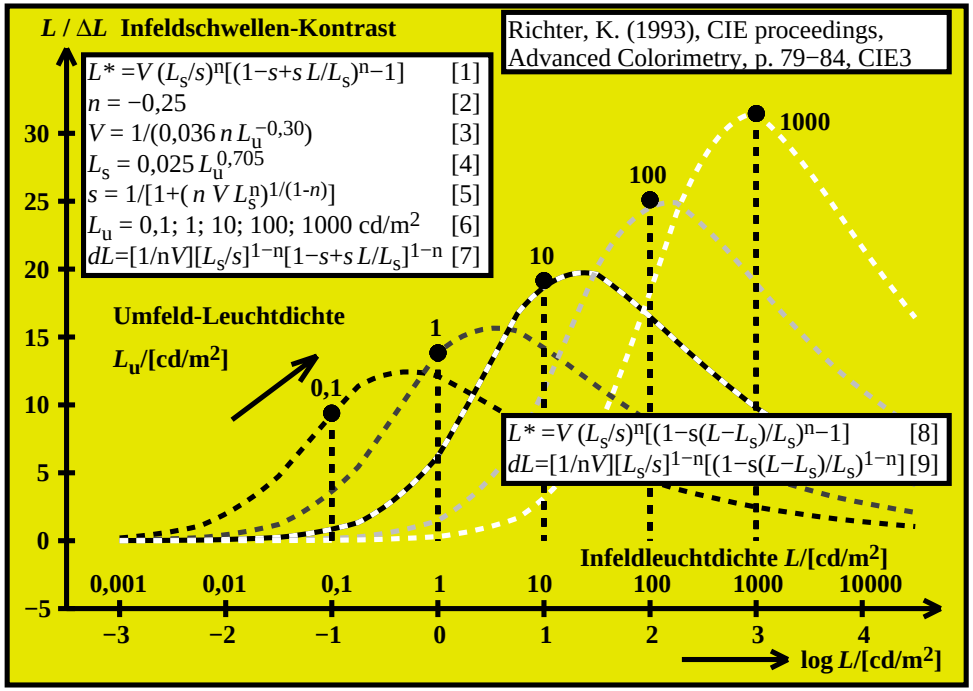
L_u/[cd/m²]

$L^* = V\,(L_s/s)^n[(1-s(L-L_s)/L_s)^n-1]$ [8]

$dL=[1/nV][L_s/s]^{1-n}[(1-s(L-L_s)/L_s)^{1-n}]$ [9]

Infeldleuchtdichte L/[cd/m²]

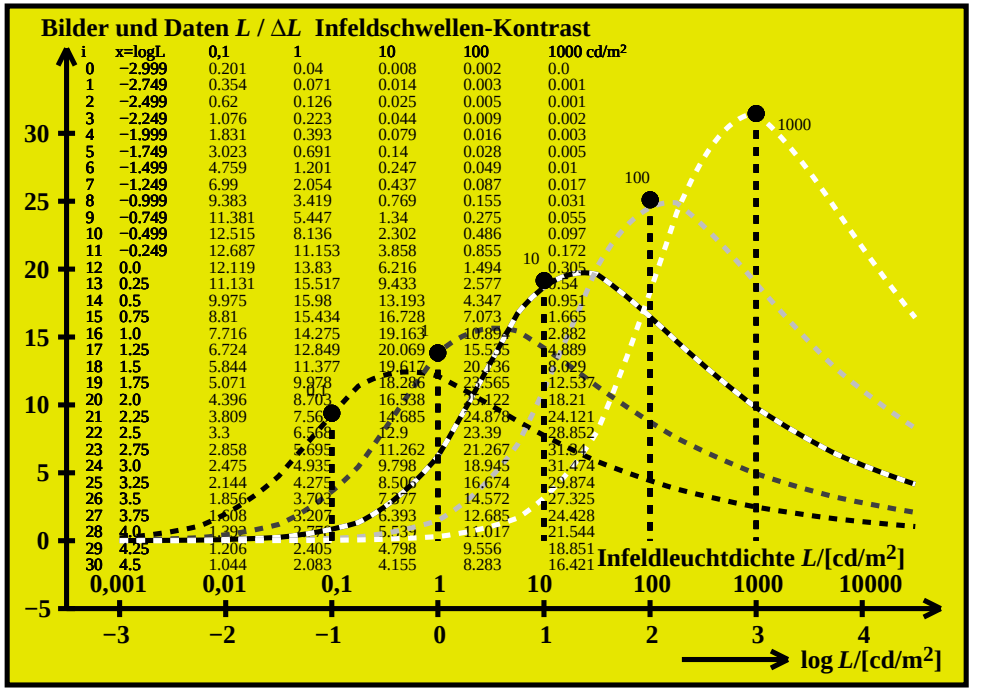
log L/[cd/m²]



hgr41−1a

Bilder und Daten L / ΔL Infeldschwellen-Kontrast

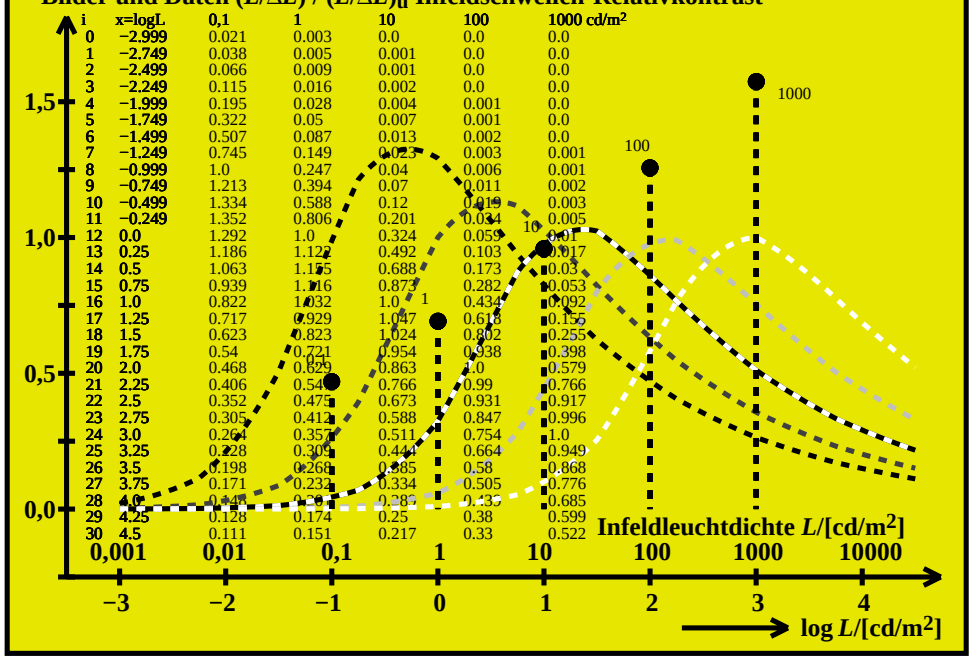
i	x=logL	0,1	1	10	100	1000 cd/m²
0	−2.999	0.201	0.04	0.008	0.002	0.0
1	−2.749	0.354	0.071	0.014	0.003	0.001
2	−2.499	0.62	0.126	0.025	0.005	0.001
3	−2.249	1.076	0.223	0.044	0.009	0.002
4	−1.999	1.831	0.393	0.079	0.016	0.003
5	−1.749	3.023	0.691	0.14	0.028	0.005
6	−1.499	4.759	1.201	0.247	0.049	0.01
7	−1.249	6.99	2.054	0.437	0.087	0.017
8	−0.999	9.383	3.419	0.769	0.155	0.031
9	−0.749	11.381	5.447	1.34	0.275	0.055
10	−0.499	12.515	8.136	2.302	0.486	0.097
11	−0.249	12.687	11.153	3.858	0.855	0.172
12	0.0	12.119	13.83	6.216	1.494	0.305
13	0.25	11.131	15.517	9.433	2.577	0.554
14	0.5	9.975	15.98	13.193	4.347	0.951
15	0.75	8.81	15.434	16.728	7.073	1.665
16	1.0	7.716	14.275	19.163	10.854	2.882
17	1.25	6.724	12.849	20.069	15.535	4.889
18	1.5	5.844	11.377	19.617	20.136	8.029
19	1.75	5.071	9.978	18.286	23.565	12.537
20	2.0	4.396	8.703	16.338	25.122	18.21
21	2.25	3.809	7.566	14.685	24.876	24.121
22	2.5	3.3	6.568	12.9	23.39	28.852
23	2.75	2.858	5.695	11.262	21.267	31.84
24	3.0	2.475	4.935	9.798	18.945	31.474
25	3.25	2.144	4.275	8.506	16.674	29.874
26	3.5	1.856	3.704	7.377	14.572	27.325
27	3.75	1.608	3.207	6.393	12.685	24.428
28	4.0	1.393	2.778	5.534	11.017	21.544
29	4.25	1.206	2.405	4.798	9.556	18.851
30	4.5	1.044	2.083	4.155	8.283	16.421



hgr41−2a

Bilder und Daten $(L/\Delta L)$ / $(L/\Delta L)_u$ Infeldschwellen-Relativkontrast

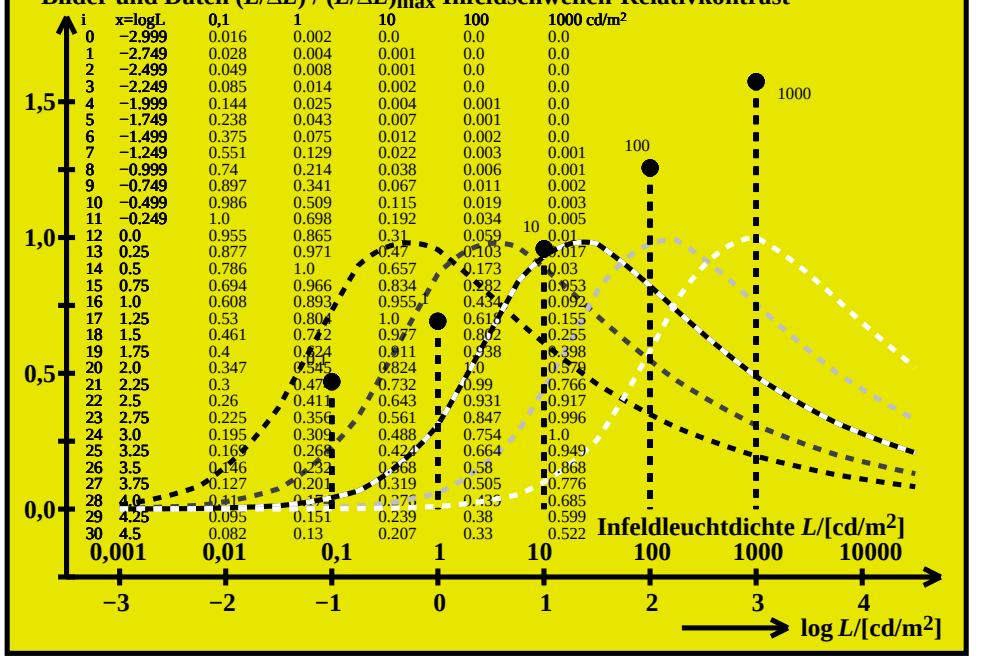
i	x=logL	0,1	1	10	100	1000 cd/m²
0	−2.999	0.021	0.003	0.0	0.0	0.0
1	−2.749	0.038	0.005	0.001	0.0	0.0
2	−2.499	0.066	0.009	0.001	0.0	0.0
3	−2.249	0.115	0.016	0.002	0.0	0.0
4	−1.999	0.195	0.028	0.004	0.001	0.0
5	−1.749	0.322	0.05	0.007	0.001	0.0
6	−1.499	0.507	0.087	0.013	0.002	0.0
7	−1.249	0.745	0.149	0.023	0.003	0.001
8	−0.999	1.0	0.247	0.04	0.006	0.001
9	−0.749	1.213	0.394	0.07	0.011	0.002
10	−0.499	1.334	0.588	0.12	0.019	0.003
11	−0.249	1.352	0.806	0.201	0.034	0.005
12	0.0	1.292	1.0	0.324	0.059	0.01
13	0.25	1.186	1.122	0.492	0.103	0.017
14	0.5	1.063	1.155	0.688	0.173	0.03
15	0.75	0.939	1.116	0.873	0.282	0.053
16	1.0	0.822	1.032	1.0	0.434	0.092
17	1.25	0.717	0.929	1.047	0.618	0.155
18	1.5	0.623	0.823	1.024	0.802	0.255
19	1.75	0.54	0.721	0.954	0.938	0.398
20	2.0	0.468	0.629	0.863	1.0	0.579
21	2.25	0.406	0.548	0.766	0.99	0.766
22	2.5	0.352	0.475	0.673	0.931	0.917
23	2.75	0.305	0.412	0.588	0.847	0.996
24	3.0	0.264	0.357	0.511	0.754	1.0
25	3.25	0.228	0.309	0.444	0.664	0.949
26	3.5	0.198	0.268	0.385	0.58	0.868
27	3.75	0.171	0.233	0.334	0.505	0.776
28	4.0	0.148	0.201	0.289	0.435	0.685
29	4.25	0.128	0.174	0.25	0.38	0.599
30	4.5	0.111	0.151	0.217	0.33	0.522



hgr41−3a

Bilder und Daten $(L/\Delta L)$ / $(L/\Delta L)_{max}$ Infeldschwellen-Relativkontrast

i	x=logL	0,1	1	10	100	1000 cd/m²
0	−2.999	0.016	0.002	0.0	0.0	0.0
1	−2.749	0.028	0.004	0.001	0.0	0.0
2	−2.499	0.049	0.008	0.001	0.0	0.0
3	−2.249	0.085	0.014	0.002	0.0	0.0
4	−1.999	0.144	0.025	0.004	0.001	0.0
5	−1.749	0.238	0.043	0.007	0.001	0.0
6	−1.499	0.375	0.075	0.012	0.002	0.0
7	−1.249	0.551	0.129	0.022	0.003	0.001
8	−0.999	0.74	0.214	0.038	0.006	0.001
9	−0.749	0.897	0.341	0.067	0.011	0.002
10	−0.499	0.986	0.509	0.115	0.019	0.003
11	−0.249	1.0	0.698	0.192	0.034	0.005
12	0.0	0.955	0.865	0.31	0.059	0.01
13	0.25	0.877	0.971	0.47	0.103	0.017
14	0.5	0.786	1.0	0.657	0.173	0.03
15	0.75	0.694	0.966	0.834	0.282	0.053
16	1.0	0.608	0.893	0.955	0.434	0.092
17	1.25	0.53	0.804	1.0	0.618	0.155
18	1.5	0.461	0.712	0.977	0.802	0.255
19	1.75	0.4	0.624	0.911	0.938	0.398
20	2.0	0.347	0.545	0.824	1.0	0.579
21	2.25	0.3	0.473	0.732	0.99	0.766
22	2.5	0.26	0.411	0.643	0.931	0.917
23	2.75	0.225	0.356	0.561	0.847	0.996
24	3.0	0.195	0.309	0.488	0.754	1.0
25	3.25	0.169	0.268	0.424	0.664	0.949
26	3.5	0.146	0.233	0.368	0.58	0.868
27	3.75	0.127	0.201	0.319	0.505	0.776
28	4.0	0.11	0.175	0.276	0.435	0.685
29	4.25	0.095	0.151	0.239	0.38	0.599
30	4.5	0.082	0.13	0.207	0.33	0.522



hgr41−4a

hgr40−3n