

Colour stimuli of just noticeable colour thresholds ($p=50\%$) in 3 directions

number Colour series	Colour stimuli colour values			Colour stimuli differences at threshold					notes experimental series
	Y	x	y	WN ΔY	GR Δx	BY Δy	BY Δx	BY Δy	
0 WPN	196.9	0.3986	0.4175	1.19	-0.0011	0.0009	-0.0016	-0.0014	WN, GR, BY
1 WPN	74.13	0.3919	0.4139	0.41	-0.0012	0.0011	-0.0016	-0.0013	grey surround
2 WPN	34.31	0.3926	0.414	0.18	-0.0013	0.0011	-0.0017	-0.0015	CIE data no. 03
3 WPN	17.69	0.3973	0.4153	0.09	-0.0016	0.0013	-0.002	-0.0017	with white
4 WPN	9.15	0.4052	0.4185	0.07	-0.0017	0.0015	-0.0029	-0.0024	border
5 WPN	4.65	0.4159	0.4226	0.05	-0.0023	0.002	-0.0042	-0.0036	
6 WPN	3.14	0.386	0.4113	0.04	-0.0027	0.0022	-0.0039	-0.0034	
7 GDR	14.96	0.1198	0.3961	0.06	-0.0061	0.003	-0.0012	-0.0022	WN, GR, BY
8 GDR	15.71	0.2422	0.3728	0.06	-0.0037	0.0021	-0.0013	-0.0016	grey surround
9 GDR	16.52	0.321	0.3578	0.06	-0.0017	0.001	-0.0016	-0.0013	CIE data no. 09
10 GDR	16.96	0.4598	0.2388	0.07	-0.0022	0.0011	-0.0022	-0.001	with white
11 GDR	17.17	0.485	0.2119	0.09	-0.002	0.0009	-0.0026	-0.001	border
12 BDY	17.29	0.2497	0.2914	0.07	-0.0018	0.0008	-0.0011	-0.0009	WN, GR, BY
13 BDY	17.26	0.2877	0.3257	0.06	-0.0017	0.0009	-0.0013	-0.0011	grey surround
14 BDY	16.44	0.3232	0.3593	0.06	-0.0016	0.001	-0.0014	-0.0013	CIE data no. 14
15 BDY	17.72	0.4338	0.4529	0.05	-0.002	0.0019	-0.0026	-0.0024	with white
16 BDY	18.46	0.4841	0.4968	0.05	-0.002	0.0025	-0.0037	-0.0032	border
Samples: bright white (W, no. 0), dark black (S, no. 10), White (W, no. 11), Black (N, no. 21) Green (G=T (turquoise), no. 22), Red (R=M (magenta), no. 32), Blue (B, no. 33), Yellow (Y, no. 43) Source: BAM Research Report no. 115 (1985), Tables 5.40;1 to 11									

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XE020-3N

Colour stimuli of just noticeable colour thresholds ($p=50\%$) in WN direction

number Colour series	CIELAB differences lightness, chroma, Σ				LABJND differences lightness, chroma, Σ				colour differences other formulae			notes experimental _WN series
	ΔL^*	Δa^*	Δb^*	ΔE^*_{ab}	ΔL^*	Δa^*	Δb^*	ΔE^*_{85}	CMC	C94	C00	
0 WPN	0.29	0.0	0.0	0.29	1.54	0.0	0.0	1.54	0.14	0.29	0.13	
1 WPN	0.19	0.0	0.0	0.19	1.37	0.0	0.0	1.37	0.1	0.19	0.12	grey surround
2 WPN	0.14	0.0	0.0	0.14	1.24	0.0	0.0	1.24	0.09	0.14	0.11	CIE data no. 03
3 WPN	0.12	0.0	0.0	0.12	1.23	0.0	0.0	1.23	0.09	0.12	0.12	with white
4 WPN	0.15	-0.01	-0.01	0.15	1.7	-0.05	-0.03	1.7	0.14	0.15	0.12	border
5 WPN	0.15	-0.02	-0.03	0.15	1.73	-0.07	-0.08	1.73	0.19	0.15	0.11	
6 WPN	0.19	0.0	0.02	0.19	2.11	0.0	0.07	2.12	0.28	0.19	0.13	
7 GDR	0.09	0.46	0.03	0.47	0.67	0.24	0.14	0.73	0.16	0.13	0.13	
8 GDR	0.09	0.11	0.01	0.14	0.64	0.14	0.04	0.66	0.09	0.1	0.1	grey surround
9 GDR	0.08	0.0	0.0	0.08	0.61	0.0	0.0	0.61	0.07	0.08	0.08	CIE data no. 09
10 GDR	0.1	-0.17	0.04	0.2	0.69	-0.31	0.18	0.78	0.09	0.1	0.1	with white
11 GDR	0.11	-0.25	0.06	0.28	0.77	-0.4	0.27	0.91	0.11	0.12	0.12	border
12 BDY	0.08	0.0	0.03	0.09	0.59	0.0	0.18	0.62	0.07	0.08	0.08	
13 BDY	0.07	0.0	0.01	0.07	0.51	0.0	0.08	0.51	0.06	0.07	0.07	grey surround
14 BDY	0.07	0.0	0.0	0.07	0.54	0.0	0.0	0.54	0.06	0.07	0.07	CIE data no. 14
15 BDY	0.07	-0.01	-0.17	0.19	0.5	-0.03	-0.17	0.53	0.09	0.09	0.09	with white
16 BDY	0.07	-0.01	-0.8	0.8	0.48	-0.02	-0.19	0.52	0.27	0.2	0.2	border
mean				0.21				1.02	0.12	0.13	0.11	
standard deviation				0.17				0.5	0.06	0.05	0.02	
Source: BAM Research Report no. 115 (1985), Tables 5.40;1 to 11												

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XE020-7N

TUB-test chart XE02; Colour thresholds data
RI experiments: Series WPN, GDR, BDY in directions WN, GR, BY; LABJND_A & D65

Colour stimuli of just noticeable colour thresholds ($p=50\%$) in GR direction

number Colour series	CIELAB differences lightness, chroma, Σ				LABJND differences lightness, chroma, Σ				colour differences other formulae			notes experimental _GR series
	ΔL^*	Δa^*	Δb^*	ΔE^*_{ab}	ΔL^*	Δa^*	Δb^*	ΔE^*_{85}	CMC	C94	C00	
0 WPN	0.01	-1.13	0.1	1.13	0.06	-1.31	0.1	1.31	1.59	1.08	1.62	
1 WPN	0.0	-0.9	0.1	0.9	0.07	-1.4	0.13	1.4	1.18	0.85	1.25	grey surround
2 WPN	0.0	-0.75	0.08	0.75	0.06	-1.45	0.14	1.46	1.0	0.72	1.07	CIE data no. 03
3 WPN	0.01	-0.71	0.06	0.71	0.11	-1.6	0.11	1.6	1.01	0.69	1.03	with white
4 WPN	0.0	-0.62	0.07	0.62	0.0	-1.53	0.15	1.54	0.84	0.59	0.87	border
5 WPN	0.0	-0.64	0.07	0.64	0.0	-1.61	0.14	1.61	0.89	0.6	0.88	
6 WPN	0.0	-0.66	0.06	0.67	0.0	-1.58	0.14	1.59	0.89	0.64	0.94	
7 GDR	0.01	-3.6	0.04	3.6	0.09	-1.51	0.12	1.52	1.16	0.81	0.8	
8 GDR	0.01	-1.69	0.05	1.69	0.09	-1.55	0.14	1.56	0.89	0.78	0.79	grey surround
9 GDR	0.01	-0.78	0.02	0.78	0.07	-1.12	0.07	1.13	1.13	0.77	1.12	CIE data no. 09
10 GDR	0.01	-1.1	0.03	1.1	0.08	-1.16	0.1	1.17	0.37	0.24	0.24	with white
11 GDR	0.02	-1.1	0.03	1.1	0.17	-1.06	0.12	1.08	0.34	0.2	0.2	border
12 BDY	0.01	-0.94	0.01	0.94	0.08	-1.24	0.04	1.25	0.8	0.68	0.75	
13 BDY	0.01	-0.8	0.02	0.8	0.08	-1.1	0.07	1.11	0.95	0.67	0.94	grey surround
14 BDY	0.0	-0.7	0.03	0.7	0.0	-1.01	0.07	1.01	1.07	0.7	1.02	CIE data no. 14
15 BDY	0.01	-0.86	0.11	0.86	0.08	-1.21	0.08	1.21	0.78	0.55	0.65	with white
16 BDY	0.01	-0.92	0.4	1.01	0.07	-1.28	0.08	1.29	0.64	0.46	0.58	border
mean				1.06				1.34	0.91	0.65	0.87	
standard deviation				0.68				0.19	0.28	0.2	0.33	
Source: BAM Research Report no. 115 (1985), Tables 5.40;1 to 11												

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XE021-3N

Colour stimuli of just noticeable colour thresholds ($p=50\%$) in BY direction

number Colour series	CIELAB differences lightness, chroma, Σ				LABJND differences lightness, chroma, Σ				colour differences other formulae			notes experimental _BY series
	ΔL^*	Δa^*	Δb^*	ΔE^*_{ab}	ΔL^*	Δa^*	Δb^*	ΔE^*_{85}	CMC	C94	C00	
0 WPN	0.0	-0.14	-1.75	1.75	0.05	-0.16	-1.69	1.7	2.49	1.71	1.71	
1 WPN	0.0	-0.1	-1.16	1.16	0.07	-0.16	-1.56	1.57	1.4	1.02	1.0	grey surround
2 WPN	0.0	-0.08	-1.01	1.02	0.06	-0.16	-1.7	1.7	1.32	0.93	0.91	CIE data no. 03
3 WPN	0.0	-0.08	-0.94	0.95	0.0	-0.19	-1.8	1.81	1.4	0.93	0.92	with white
4 WPN	0.0	-0.09	-1.08	1.08	0.0	-0.23	-2.16	2.17	1.43	1.01	1.02	border
5 WPN	0.0	-0.1	-1.31	1.32	0.0	-0.26	-2.46	2.47	1.55	1.12	1.15	
6 WPN	0.0	-0.08	-0.97	0.98	0.0	-0.2	-2.09	2.1	1.29	0.9	0.89	
7 GDR	0.0	-0.25	-0.51	0.57	0.0	-0.1	-1.36	1.37	0.22	0.22	0.22	
8 GDR	0.0	-0.11	-0.46	0.47	0.0	-0.1	-1.16	1.16	0.3	0.31	0.31	grey surround
9 GDR	0.0	-0.09	-0.48	0.49	0.0	-0.14	-1.17	1.18	0.71	0.48	0.48	CIE data no. 09
10 GDR	0.01	-0.07	-0.63	0.63	0.08	-0.09	-1.64	1.64	0.54	0.28	0.23	with white
11 GDR	0.01	-0.08	-0.74	0.75	0.07	-0.09	-1.97	1.97	0.58	0.29	0.23	border
12 BDY	0.0	-0.09	-0.36	0.37	0.0	-0.12	-0.97	0.97	0.2	0.17	0.17	
13 BDY	0.0	-0.1	-0.42	0.44	0.0	-0.15	-1.09	1.1	0.34	0.28	0.29	grey surround
14 BDY	0.0	-0.09	-0.45	0.46	0.0	-0.13	-1.08	1.09	0.69	0.45	0.46	CIE data no. 14
15 BDY	0.0	-0.08	-1.24	1.24	0.0	-0.11	-1.0	1.01	0.54	0.45	0.45	with white
16 BDY	0.01	-0.11	-4.84	4.85	0.07	-0.16	-1.07	1.09	1.59	1.1	1.14	border
mean				1.09				1.54	0.98	0.69	0.68	
standard deviation				1.01				0.44	0.61	0.42	0.43	
Source: BAM Research Report no. 115 (1985), Tables 5.40;1 to 11												

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XE021-7N

input: w/rgb/cmyk -> w/rgb/cmyk-
TUB material: code=rha4ta