

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 Δx	−BY Δy	
0 WPN	196.9	0.3986	0.4175	1.19	−0.0011	0.0009	−0.0016	−0.0014	_WN, GR, BY grey surround CIE data no. 03 with white border
1 WPN	74.13	0.3919	0.4139	0.41	−0.0012	0.0011	−0.0016	−0.0013	
2 WPN	34.31	0.3926	0.414	0.18	−0.0013	0.0011	−0.0017	−0.0015	
3 WPN	17.69	0.3973	0.4153	0.09	−0.0016	0.0013	−0.002	−0.0017	
4 WPN	9.15	0.4052	0.4185	0.07	−0.0017	0.0015	−0.0029	−0.0024	
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 grey surround CIE data no. 09 with white border
8 GDR	15.71	0.2422	0.3728	0.06	−0.0037	0.0021	−0.0013	−0.0016	
9 GDR	16.52	0.321	0.3578	0.06	−0.0017	0.001	−0.0016	−0.0013	
10 GDR	16.96	0.4598	0.2388	0.07	−0.0022	0.0011	−0.0022	−0.001	
11 GDR	17.17	0.485	0.2119	0.09	−0.002	0.0009	−0.0026	−0.001	
12 BDY	17.29	0.2497	0.2914	0.07	−0.0018	0.0008	−0.0011	−0.0009	_WN, GR, BY grey surround CIE data no. 14 with white border
13 BDY	17.26	0.2877	0.3257	0.06	−0.0017	0.0009	−0.0013	−0.0011	
14 BDY	16.44	0.3232	0.3593	0.06	−0.0016	0.001	−0.0014	−0.0013	
15 BDY	17.72	0.4338	0.4529	0.05	−0.002	0.0019	−0.0026	−0.0024	
16 BDY	18.46	0.4841	0.4968	0.05	−0.002	0.0025	−0.0037	−0.0032	
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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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 series	
	ΔL^*	Δa^*	Δb^*	ΔE^*	ΔL^*	Δa^*	Δb^*	ΔE^*	CMC	C94	C00		
0 <i>WPN</i>	0.29	0.0	0.0	0.29	1.54	0.0	0.0	1.54	0.14	0.29	0.13	<i>_WN, GR, BY</i> grey surround CIE data no. 03 with white border	
1 <i>WPN</i>	0.19	0.0	0.0	0.19	1.37	0.0	0.0	1.37	0.1	0.19	0.12		
2 <i>WPN</i>	0.14	0.0	0.0	0.14	1.24	0.0	0.0	1.24	0.09	0.14	0.11		
3 <i>WPN</i>	0.12	0.0	0.0	0.12	1.23	0.0	0.0	1.23	0.09	0.12	0.12		
4 <i>WPN</i>	0.15	-0.01	-0.01	0.15	1.7	-0.05	-0.03	1.7	0.14	0.15	0.12		
5 <i>WPN</i>	0.15	-0.02	-0.03	0.15	1.73	-0.07	-0.08	1.73	0.19	0.15	0.11		
6 <i>WPN</i>	0.19	0.0	0.02	0.19	2.11	0.0	0.07	2.12	0.28	0.19	0.13		
7 <i>GDR</i>	0.09	0.46	0.03	0.47	1.0	0.37	0.22	1.09	0.16	0.13	0.13	<i>_WN, GR, BY</i> grey surround CIE data no. 09 with white border	
8 <i>GDR</i>	0.09	0.11	0.01	0.14	0.96	0.21	0.07	0.99	0.09	0.1	0.1		
9 <i>GDR</i>	0.08	0.0	0.0	0.08	0.92	-0.01	0.0	0.92	0.07	0.08	0.08		
10 <i>GDR</i>	0.1	-0.17	0.04	0.2	1.03	-0.47	0.28	1.17	0.09	0.1	0.1		
11 <i>GDR</i>	0.11	-0.25	0.06	0.28	1.15	-0.6	0.43	1.37	0.11	0.12	0.12		
12 <i>BDY</i>	0.08	0.0	0.03	0.09	0.89	0.01	0.29	0.94	0.07	0.08	0.08	<i>_WN, GR, BY</i> grey surround CIE data no. 14 with white border	
13 <i>BDY</i>	0.07	0.0	0.01	0.07	0.76	0.01	0.13	0.77	0.06	0.07	0.07		
14 <i>BDY</i>	0.07	0.0	0.0	0.07	0.81	-0.01	0.0	0.81	0.06	0.07	0.07		
15 <i>BDY</i>	0.07	-0.01	-0.17	0.19	0.75	-0.05	-0.28	0.8	0.09	0.09	0.09		
16 <i>BDY</i>	0.07	-0.01	-0.8	0.8	0.72	-0.03	-0.31	0.79	0.27	0.2	0.2		
mean				0.21					1.21	0.12	0.13	0.11	
standard deviation				0.17					0.37	0.06	0.05	0.02	

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TUB-test chart WE79; Colour thresholds data
RI experiments: Series WPN, GDR, BDY in directions WN, GR, BY; LABJND_{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 series
	ΔL^*	Δa^*	Δb^*	ΔE^*	ΔL^*	Δa^*	Δb^*	ΔE^*	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	_WN, GR, BY grey surround CIE data no. 03 with white border
1 WPN	0.0	-0.9	0.1	0.9	0.07	-1.4	0.13	1.4	1.18	0.85	1.25	
2 WPN	0.0	-0.75	0.08	0.75	0.06	-1.45	0.14	1.46	1.0	0.72	1.07	
3 WPN	0.01	-0.71	0.06	0.71	0.11	-1.6	0.11	1.6	1.01	0.69	1.03	
4 WPN	0.0	-0.62	0.07	0.62	0.0	-1.53	0.15	1.54	0.84	0.59	0.87	
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	0.14	-2.27	0.19	2.28	1.16	0.81	0.8	_WN, GR, BY grey surround CIE data no. 09 with white border
8 GDR	0.01	-1.69	0.05	1.69	0.13	-2.33	0.22	2.35	0.89	0.78	0.79	
9 GDR	0.01	-0.78	0.02	0.78	0.11	-1.68	0.11	1.69	1.13	0.77	1.12	
10 GDR	0.01	-1.1	0.03	1.1	0.12	-1.74	0.16	1.76	0.37	0.24	0.24	
11 GDR	0.02	-1.1	0.03	1.1	0.25	-1.59	0.19	1.63	0.34	0.2	0.2	
12 BDY	0.01	-0.94	0.01	0.94	0.12	-1.87	0.06	1.87	0.8	0.68	0.75	_WN, GR, BY grey surround CIE data no. 14 with white border
13 BDY	0.01	-0.8	0.02	0.8	0.12	-1.66	0.12	1.67	0.95	0.67	0.94	
14 BDY	0.0	-0.7	0.03	0.7	0.0	-1.52	0.12	1.53	1.07	0.7	1.02	
15 BDY	0.01	-0.86	0.11	0.86	0.12	-1.82	0.13	1.83	0.78	0.55	0.65	
16 BDY	0.01	-0.92	0.4	1.01	0.1	-1.93	0.14	1.94	0.64	0.46	0.58	
mean				1.06					1.71	0.91	0.65	0.87
standard deviation				0.68					0.27	0.28	0.2	0.33
Source: BAM Research Report no. 115 (1985), Tables 5.40;1 to 11; LABJND _{D65}												

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WE791-3N

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 series	
	ΔL^*	Δa^*	Δb^*	ΔE^*	ΔL^*	Δa^*	Δb^*	ΔE^*	CMC	C94	C00		
0 <i>WPN</i>	0.0	-0.14	-1.75	1.75	0.05	-0.16	-1.69	1.7	2.49	1.71	1.71	<i>_WN, GR, BY</i> grey surround CIE data no. 03 with white border	
1 <i>WPN</i>	0.0	-0.1	-1.16	1.16	0.07	-0.16	-1.56	1.57	1.4	1.02	1.0		
2 <i>WPN</i>	0.0	-0.08	-1.01	1.02	0.06	-0.16	-1.7	1.7	1.32	0.93	0.91		
3 <i>WPN</i>	0.0	-0.08	-0.94	0.95	0.0	-0.19	-1.8	1.81	1.4	0.93	0.92		
4 <i>WPN</i>	0.0	-0.09	-1.08	1.08	0.0	-0.23	-2.16	2.17	1.43	1.01	1.02		
5 <i>WPN</i>	0.0	-0.1	-1.31	1.32	0.0	-0.26	-2.46	2.47	1.55	1.12	1.15		
6 <i>WPN</i>	0.0	-0.08	-0.97	0.98	0.0	-0.2	-2.09	2.1	1.29	0.9	0.89		
7 <i>GDR</i>	0.0	-0.25	-0.51	0.57	0.0	-0.16	-2.17	2.17	0.22	0.22	0.22	<i>_WN, GR, BY</i> grey surround CIE data no. 09 with white border	
8 <i>GDR</i>	0.0	-0.11	-0.46	0.47	0.0	-0.16	-1.84	1.85	0.3	0.31	0.31		
9 <i>GDR</i>	0.0	-0.09	-0.48	0.49	0.0	-0.21	-1.86	1.87	0.71	0.48	0.48		
10 <i>GDR</i>	0.01	-0.07	-0.63	0.63	0.12	-0.14	-2.61	2.61	0.54	0.28	0.23		
11 <i>GDR</i>	0.01	-0.08	-0.74	0.75	0.11	-0.14	-3.13	3.13	0.58	0.29	0.23		
12 <i>BDY</i>	0.0	-0.09	-0.36	0.37	0.0	-0.18	-1.54	1.55	0.2	0.17	0.17	<i>_WN, GR, BY</i> grey surround CIE data no. 14 with white border	
13 <i>BDY</i>	0.0	-0.1	-0.42	0.44	0.0	-0.22	-1.73	1.75	0.34	0.28	0.29		
14 <i>BDY</i>	0.0	-0.09	-0.45	0.46	0.0	-0.19	-1.73	1.74	0.69	0.45	0.46		
15 <i>BDY</i>	0.0	-0.08	-1.24	1.24	0.0	-0.17	-1.59	1.6	0.54	0.45	0.45		
16 <i>BDY</i>	0.01	-0.11	-4.84	4.85	0.1	-0.24	-1.71	1.73	1.59	1.1	1.14		
mean				1.09					1.97	0.98	0.69	0.68	
standard deviation				1.01					0.41	0.61	0.42	0.43	

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WE791-7N

input: w/rgb/cmyk -> w/rgb/cmyk-