

Performance (STRESS values) for large colour difference data (LCD)

data set	Calculations with data for grey surrounds (D65) and 0,1 < Y < 190									
	Difference $\Delta E^*_{\text{CIELAB}}$					Colour difference formula and STRESS value				
Name	Pairs	ΔE^*_{ab} range	min	max	mean	CIELAB $\Delta E_{\text{ab_PF}}$	CMC $\Delta E_{\text{CMs_PF}}$	CIE94 ΔE_{94_PF}	CIEDE2000 ΔE_{00_PF}	LABJND ΔE_{85_PF}
OS_0128	128	0.0 to <99.0	7.33	21.63	14.32	21.7	21.7	18.5	19.0	19.1
MU_0844	844	0.0 to <99.0	4.17	22.59	10.05	12.7	24.0	24.6	23.7	25.9
PO_1308	1308	0.0 to <99.0	0.87	26.19	8.9	26.4	30.1	25.9	28.0	30.8
GU_0292	292	0.0 to <99.0	4.79	20.86	11.42	21.1	18.2	14.4	14.7	16.7
ZH_0144	144	0.0 to <99.0	4.85	19.79	9.91	20.6	24.7	22.5	21.2	18.3
BA_0238	238	0.0 to <99.0	4.11	35.78	11.74	27.3	21.1	19.2	17.9	23.4
RL_0080	80	0.0 to <99.0	1.38	36.6	11.11	38.4	43.2	45.5	46.9	38.7
KL_0624	624	0.0 to <99.0	1.91	43.77	21.21	20.6	22.3	25.2	23.2	22.8
OS_0128	0									
MU_0844	17	0.0 to <5.0	4.17	4.97	4.63	2.5	9.0	4.1	12.0	8.6
PO_1308	268	0.0 to <5.0	0.87	4.99	3.36	25.3	28.4	24.1	25.8	27.5
GU_0292	1	0.0 to <5.0	4.79	4.79	4.79	0.1	0.1	0.1	0.1	0.1
ZH_0144	3	0.0 to <5.0	4.85	4.96	4.91	0.8	7.2	0.7	4.1	10.7
BA_0238	8	0.0 to <5.0	4.11	4.92	4.63	21.2	11.9	23.3	18.4	27.4
RL_0080	13	0.0 to <5.0	1.38	4.93	3.27	19.2	20.9	18.9	17.6	10.1
KL_0624	6	0.0 to <5.0	1.91	4.88	3.23	47.4	48.0	48.0	50.2	52.7
OS_0128	128	5.0 to <99.0	7.33	21.63	14.32	21.7	21.7	18.5	19.0	19.1
MU_0844	827	5.0 to <99.0	5.01	22.59	10.16	12.8	24.1	24.6	23.8	26.0
PO_1308	1040	5.0 to <99.0	5.01	26.19	10.33	26.1	30.2	26.0	28.1	28.6
GU_0292	291	5.0 to <99.0	5.33	20.86	11.44	21.1	18.2	14.4	14.7	16.5
ZH_0144	141	5.0 to <99.0	5.0	19.79	10.01	20.6	24.7	22.6	21.2	18.1
BA_0238	230	5.0 to <99.0	5.0	35.78	11.98	27.4	21.1	19.0	17.9	22.1
RL_0080	67	5.0 to <99.0	5.14	36.6	12.63	38.6	43.4	45.8	47.2	33.8
KL_0624	618	5.0 to <99.0	5.02	43.77	21.38	20.5	22.3	25.2	23.1	22.6
OS_0128	9	5.0 to <10.0	7.33	9.86	8.71	22.6	24.5	20.9	20.2	21.7
MU_0844	411	5.0 to <10.0	5.01	9.99	8.58	12.0	24.4	25.8	25.5	20.6
PO_1308	567	5.0 to <10.0	5.01	9.99	7.44	25.2	29.2	24.9	28.4	24.9
GU_0292	95	5.0 to <10.0	5.33	9.97	8.64	20.5	14.5	13.8	13.0	18.3
ZH_0144	70	5.0 to <10.0	5.0	9.98	7.4	22.2	22.9	19.3	18.5	17.9
BA_0238	33	5.0 to <10.0	5.0	9.96	7.09	23.8	21.3	28.7	19.4	39.4
RL_0080	27	5.0 to <10.0	5.14	9.99	7.54	37.2	45.8	44.5	48.2	36.6
KL_0624	68	5.0 to <10.0	5.02	9.99	8.08	41.6	41.1	41.0	42.1	38.4
OS_0128	115	10.0 to <20.0	10.2	19.7	14.54	21.8	21.6	18.1	19.1	18.4
MU_0844	412	10.0 to <20.0	10.0	19.34	11.63	13.0	22.4	23.1	21.5	28.9
PO_1308	460	10.0 to <20.0	10.02	19.87	13.55	26.3	30.8	26.4	28.1	28.2
GU_0292	195	10.0 to <20.0	10.01	18.64	12.76	21.4	19.1	14.4	15.0	13.8
ZH_0144	71	10.0 to <20.0	10.02	19.79	12.59	19.0	24.1	22.4	22.3	18.1
BA_0238	191	10.0 to <20.0	10.11	19.3	12.39	27.1	21.3	17.8	17.9	18.7
RL_0080	33	10.0 to <20.0	10.1	19.9	14.34	34.1	41.1	40.7	45.2	31.4
KL_0624	211	10.0 to <20.0	10.0	19.95	14.86	27.0	25.7	26.4	26.9	21.9
OS_0128	4	20.0 to <99.0	20.01	21.63	20.85	16.4	17.4	19.3	12.1	29.0
MU_0844	4	20.0 to <99.0	20.81	22.59	21.89	11.8	3.8	8.3	1.2	3.3
PO_1308	13	20.0 to <99.0	20.02	26.19	22.77	21.7	17.4	19.8	16.8	22.1
GU_0292	1	20.0 to <99.0	20.86	20.86	20.86	0.1	0.1	0.1	0.1	0.1
ZH_0144	0									
BA_0238	6	20.0 to <99.0	20.19	35.78	26.08	12.8	6.6	11.2	11.8	10.8
RL_0080	7	20.0 to <99.0	20.07	36.6	24.25	34.2	37.2	45.3	41.2	35.2
KL_0624	339	20.0 to <99.0	20.06	43.77	28.11	15.9	19.3	22.9	20.0	18.6
data sets: OS_0128, MU_0844, PO_1308, GU_0292, ZH_0144, BA_0238, RL_0080, KL_0624										

data sets: OS_0128, MU_0844, PO_1308, GU_0292, ZH_0144, BA_0238, RL_0080, KL_0624

Performance (STRESS values) for large colour difference data (LCD)

data set	Calculations with data for grey surrounds (D65) and 0,1 < Y < 190						Colour difference formula and STRESS value				
	Difference	$\Delta E^*_{CIEDE2000}$					CIE LAB	CMC	CIE94	CIEDE2000	LABJND
Name	Pairs	ΔE^*_{C00}	range	min	max	mean	ΔE	ΔE	ΔE	ΔE	ΔE
OS_0128	128	0.0 to <99.0		7.33	21.63	14.32	21.7	21.7	18.5	19.0	19.1
MU_0844	844	0.0 to <99.0		4.17	22.59	10.05	12.7	24.0	24.6	23.7	25.9
PO_1308	1308	0.0 to <99.0		0.87	26.19	8.9	26.4	30.1	25.9	28.0	30.8
GU_0292	292	0.0 to <99.0		4.79	20.86	11.42	21.1	18.2	14.4	14.7	16.7
ZH_0144	144	0.0 to <99.0		4.85	19.79	9.91	20.6	24.7	22.5	21.2	18.3
BA_0238	238	0.0 to <99.0		4.11	35.78	11.74	27.3	21.1	19.2	17.9	23.4
RL_0080	80	0.0 to <99.0		1.38	36.6	11.11	38.4	43.2	45.5	46.9	38.7
KL_0624	624	0.0 to <99.0		1.91	43.77	21.21	20.6	22.3	25.2	23.2	22.8
OS_0128	7	0.0 to <5.0		7.33	16.91	10.65	13.7	15.4	15.9	11.9	16.6
MU_0844	228	0.0 to <5.0		4.17	15.18	8.58	11.2	21.6	20.1	22.4	19.3
PO_1308	543	0.0 to <5.0		0.87	12.69	5.17	26.1	30.5	26.2	27.1	31.0
GU_0292	35	0.0 to <5.0		4.79	15.27	9.73	19.3	17.4	20.4	19.2	23.7
ZH_0144	73	0.0 to <5.0		4.85	16.42	8.06	22.8	17.5	15.8	15.5	18.2
BA_0238	38	0.0 to <5.0		4.11	20.19	8.22	28.0	19.7	30.1	21.8	35.4
RL_0080	34	0.0 to <5.0		1.38	20.07	7.45	34.5	45.4	50.0	48.7	52.9
KL_0624	41	0.0 to <5.0		1.91	15.72	8.12	51.6	49.3	48.7	49.8	47.7
OS_0128	121	5.0 to <99.0		8.75	21.63	14.54	21.5	21.8	18.5	19.0	18.5
MU_0844	616	5.0 to <99.0		5.76	22.59	10.6	13.2	21.2	20.3	18.7	25.9
PO_1308	765	5.0 to <99.0		4.12	26.19	11.55	25.8	30.0	25.7	27.7	27.8
GU_0292	257	5.0 to <99.0		6.31	20.86	11.65	19.5	18.2	13.8	14.1	16.0
ZH_0144	71	5.0 to <99.0		6.3	19.79	11.81	17.5	25.6	22.7	22.6	16.8
BA_0238	200	5.0 to <99.0		5.12	35.78	12.4	25.8	20.7	17.9	17.6	18.5
RL_0080	46	5.0 to <99.0		6.44	36.6	13.82	39.8	40.1	40.6	43.1	29.9
KL_0624	583	5.0 to <99.0		5.68	43.77	22.13	19.3	21.5	24.4	22.3	21.7
OS_0128	82	5.0 to <10.0		8.75	21.63	14.4	20.9	19.6	19.7	18.7	18.7
MU_0844	532	5.0 to <10.0		5.76	19.17	10.36	13.8	22.6	20.6	18.8	24.7
PO_1308	542	5.0 to <10.0		4.12	20.02	10.19	25.9	30.9	26.4	28.5	26.6
GU_0292	185	5.0 to <10.0		6.31	20.86	11.13	19.1	15.6	14.5	12.6	17.6
ZH_0144	60	5.0 to <10.0		6.3	16.88	11.11	17.9	23.3	16.9	17.3	17.7
BA_0238	147	5.0 to <10.0		5.12	29.29	11.7	22.7	18.1	18.7	15.2	19.8
RL_0080	33	5.0 to <10.0		6.44	24.29	12.62	38.9	38.2	38.0	38.6	30.1
KL_0624	146	5.0 to <10.0		5.68	29.88	12.87	32.0	30.5	29.6	30.6	29.5
OS_0128	39	10.0 to <20.0		10.63	20.68	14.81	17.3	24.3	16.6	18.7	18.2
MU_0844	84	10.0 to <20.0		10.35	22.59	12.1	8.6	10.4	18.0	13.9	30.6
PO_1308	220	10.0 to <20.0		7.82	25.81	14.73	25.5	28.3	24.3	25.2	27.6
GU_0292	72	10.0 to <20.0		9.25	18.64	12.98	16.3	21.8	12.4	15.5	12.3
ZH_0144	11	10.0 to <20.0		10.34	19.79	15.66	15.1	24.8	15.2	19.2	12.1
BA_0238	53	10.0 to <20.0		9.83	35.78	14.36	18.5	20.6	13.5	19.1	9.5
RL_0080	12	10.0 to <20.0		9.99	26.36	15.23	44.5	45.3	37.2	48.0	30.3
KL_0624	301	10.0 to <20.0		10.79	41.13	22.71	18.8	20.0	21.8	21.0	21.6
OS_0128	0										
MU_0844	0										
PO_1308	3	20.0 to <99.0		24.26	26.19	25.31	7.8	5.0	6.9	6.5	7.6
GU_0292	0										
ZH_0144	0										
BA_0238	0										
RL_0080	1	20.0 to <99.0		36.6	36.6	36.6	0.1	0.1	0.1	0.1	0.1
KL_0624	136	20.0 to <99.0		23.23	43.77	30.79	11.3	14.8	16.6	13.5	16.5

data sets: OS_0128, MU_0844, PO_1308, GU_0292, ZH_0144, BA_0238, RL_0080, KL_0624

Performance (STRESS values) for large colour difference data (LCD)

data set	Calculations with data for grey surrounds (D65) and 0,1 < Y < 190					Colour difference formula and STRESS value				
	Difference	ΔE^*_{LABJND}				CIE LAB	CMC	CIE94	CIEDE2000	LABJND
Name	Pairs	ΔE^*_{C85}	range	min	max	mean	ΔE	ΔE	ΔE	ΔE
OS_0128	116	0.0 to <99.0	7.33	21.63	14.23	20.5	21.7	19.1	19.6	19.5
MU_0844	701	0.0 to <99.0	4.17	22.59	9.95	14.0	22.4	24.5	24.2	24.2
PO_1308	1283	0.0 to <99.0	0.87	25.81	8.7	26.2	29.8	25.4	27.8	30.9
GU_0292	242	0.0 to <99.0	4.79	20.86	11.37	18.4	16.9	15.9	15.4	18.8
ZH_0144	141	0.0 to <99.0	4.85	19.79	9.82	20.3	25.1	23.0	21.5	18.6
BA_0238	212	0.0 to <99.0	4.11	35.78	11.38	25.6	19.5	19.6	16.8	25.1
RL_0080	76	0.0 to <99.0	1.38	36.6	10.81	39.0	45.2	48.8	49.4	41.3
KL_0624	273	0.0 to <99.0	1.91	41.4	16.6	28.3	30.4	31.7	30.9	33.3
OS_0128	0									
MU_0844	0									
PO_1308	16	0.0 to <5.0	0.87	2.94	1.71	29.2	33.7	31.0	35.6	21.9
GU_0292	0									
ZH_0144	0									
BA_0238	0									
RL_0080	0									
KL_0624	0									
OS_0128	116	5.0 to <99.0	7.33	21.63	14.23	20.5	21.7	19.1	19.6	19.5
MU_0844	701	5.0 to <99.0	4.17	22.59	9.95	14.0	22.4	24.5	24.2	24.2
PO_1308	1267	5.0 to <99.0	1.12	25.81	8.79	26.2	29.8	25.4	27.8	30.8
GU_0292	242	5.0 to <99.0	4.79	20.86	11.37	18.4	16.9	15.9	15.4	18.8
ZH_0144	141	5.0 to <99.0	4.85	19.79	9.82	20.3	25.1	23.0	21.5	18.6
BA_0238	212	5.0 to <99.0	4.11	35.78	11.38	25.6	19.5	19.6	16.8	25.1
RL_0080	76	5.0 to <99.0	1.38	36.6	10.81	39.0	45.2	48.8	49.4	41.3
KL_0624	273	5.0 to <99.0	1.91	41.4	16.6	28.3	30.4	31.7	30.9	33.3
OS_0128	0									
MU_0844	2	5.0 to <10.0	4.69	5.26	4.97	3.1	4.5	4.5	4.9	3.4
PO_1308	52	5.0 to <10.0	1.12	7.58	3.13	22.7	26.2	22.0	26.6	28.9
GU_0292	1	5.0 to <10.0	7.57	7.57	7.57	0.1	0.1	0.1	0.1	0.1
ZH_0144	1	5.0 to <10.0	7.55	7.55	7.55	0.1	0.1	0.1	0.1	0.1
BA_0238	0									
RL_0080	4	5.0 to <10.0	2.31	7.44	5.14	18.8	25.0	24.1	25.3	31.7
KL_0624	0									
OS_0128	4	10.0 to <20.0	7.33	10.69	9.1	23.5	12.5	8.1	7.7	26.2
MU_0844	133	10.0 to <20.0	4.42	15.18	8.88	14.4	32.3	26.3	33.5	21.0
PO_1308	259	10.0 to <20.0	1.31	10.26	4.9	21.8	25.2	21.7	26.6	30.6
GU_0292	34	10.0 to <20.0	5.33	14.0	9.25	22.2	13.8	14.5	13.6	18.9
ZH_0144	31	10.0 to <20.0	4.85	12.61	7.58	22.3	19.7	15.7	14.9	20.9
BA_0238	28	10.0 to <20.0	5.12	20.19	9.63	29.2	16.9	18.0	15.8	19.1
RL_0080	20	10.0 to <20.0	1.38	20.72	7.98	41.2	47.1	49.4	50.8	44.4
KL_0624	6	10.0 to <20.0	1.91	8.58	6.39	30.3	30.5	30.7	31.3	35.1
OS_0128	112	20.0 to <99.0	7.51	21.63	14.42	20.4	21.7	18.7	19.5	19.2
MU_0844	566	20.0 to <99.0	4.17	22.59	10.22	13.6	20.2	23.7	22.2	23.6
PO_1308	956	20.0 to <99.0	2.11	25.81	10.15	25.8	30.1	25.7	27.8	29.9
GU_0292	207	20.0 to <99.0	4.79	20.86	11.74	17.2	17.2	15.7	15.4	18.8
ZH_0144	109	20.0 to <99.0	4.92	19.79	10.48	19.6	25.8	23.4	22.4	17.5
BA_0238	184	20.0 to <99.0	4.11	35.78	11.65	25.0	19.7	19.1	16.7	25.2
RL_0080	52	20.0 to <99.0	2.51	36.6	12.33	38.7	43.4	47.4	47.9	40.2
KL_0624	267	20.0 to <99.0	2.02	41.4	16.83	28.3	30.2	31.5	30.6	33.3

data sets: OS_0128, MU_0844, PO_1308, GU_0292, ZH_0144, BA_0238, RL_0080, KL_0624