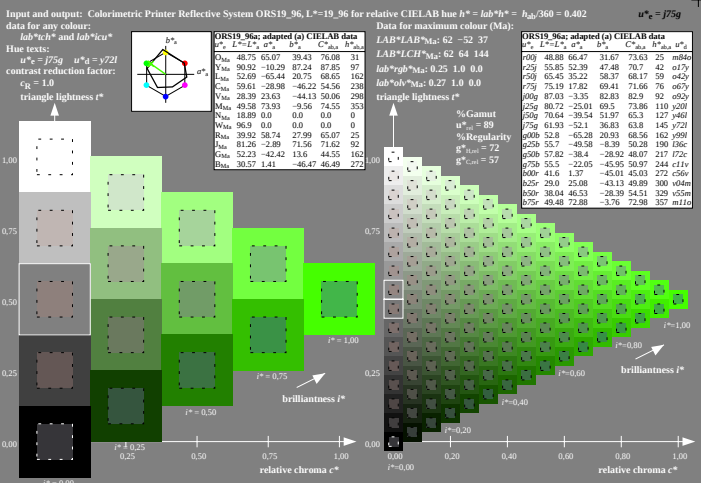
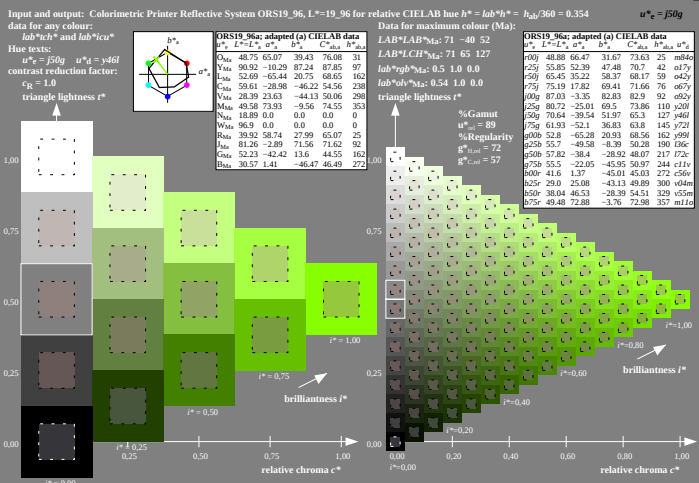
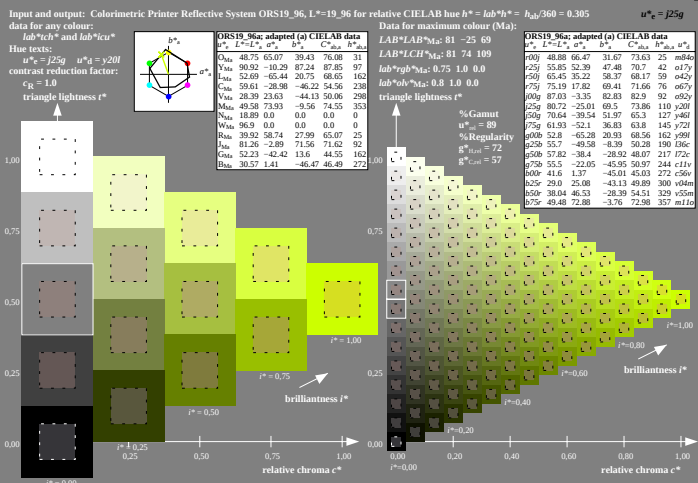




Input and output: Colorimetric Printer Reflective System ORS19_96a
data for any colour:
 u^*_e and number no. = 00...15
elementary hue text:
 $u^*_e = 16$ hues $r00$, $r25$, ..., $b75$
contrast reduction factor:
 $c_R = 1.0$

ORS19_96a, adapted (a) CIELAB data

L^*	a^*	b^*	C_{90}	H_{90}	u^*_e
000	48.88	66.47	31.67	73.63	25 m846
25	55.85	52.39	47.48	70.12	42 o17y
50	65.45	35.22	58.37	68.17	59 o42y
75	75.19	17.82	69.41	71.66	76 o67y
100	87.03	-3.35	82.83	82.9	92 o92y
125	80.72	-25.01	69.5	73.86	110 y200
150	70.64	-39.54	51.97	65.3	127 y400
175	61.93	-52.1	36.83	63.8	145 y720
200	52.8	-65.28	20.93	68.56	162 y990
225	55.7	-49.58	-8.39	50.28	180 b600
250	57.82	-38.4	-28.92	48.07	217 b720
275	57.53	-22.05	-45.95	50.97	244 c110
300	41.6	1.37	-45.01	45.03	272 c500
325	29.0	25.08	-43.13	49.89	300 v040
350	38.04	46.53	-38.39	54.51	329 v500
375	49.48	72.88	-3.76	72.98	357 m110



ORS19_96a, adapted (a) CIELAB data

L^*	a^*	b^*	C_{90}	H_{90}	u^*_e
000	48.75	65.07	39.43	76.08	31
25	55.85	52.39	47.48	70.12	42
50	65.45	35.22	58.37	68.17	59
75	75.19	17.82	69.41	71.66	76
100	87.03	-3.35	82.83	82.9	92
125	80.72	-25.01	69.5	73.86	110
150	70.64	-39.54	51.97	65.3	127
175	61.93	-52.1	36.83	63.8	145
200	52.8	-65.28	20.93	68.56	162
225	55.7	-49.58	-8.39	50.28	180
250	57.82	-38.4	-28.92	48.07	217
275	57.53	-22.05	-45.95	50.97	244
300	41.6	1.37	-45.01	45.03	272
325	29.0	25.08	-43.13	49.89	300
350	38.04	46.53	-38.39	54.51	329
375	49.48	72.88	-3.76	72.98	357



Input and output: Colorimetric Printer Reflective System ORS19_96, $L^*=19..96$ for relative CIELAB hue $h^* = \text{lab}^*h^* = h_{90}/360 = 0.071$
data for any colour:
 lab^*h^* and lab^*u^*
Hue texts:
 $u^*_e = r00$ $u^*_d = m846$
contrast reduction factor:
 $c_R = 1.0$
triangle lightness l^*



ORS19_96a, adapted (a) CIELAB data

L^*	a^*	b^*	C_{90}	H_{90}	u^*_e
000	48.75	65.07	39.43	76.08	31
25	55.85	52.39	47.48	70.12	42
50	65.45	35.22	58.37	68.17	59
75	75.19	17.82	69.41	71.66	76
100	87.03	-3.35	82.83	82.9	92
125	80.72	-25.01	69.5	73.86	110
150	70.64	-39.54	51.97	65.3	127
175	61.93	-52.1	36.83	63.8	145
200	52.8	-65.28	20.93	68.56	162
225	55.7	-49.58	-8.39	50.28	180
250	57.82	-38.4	-28.92	48.07	217
275	57.53	-22.05	-45.95	50.97	244
300	41.6	1.37	-45.01	45.03	272
325	29.0	25.08	-43.13	49.89	300
350	38.04	46.53	-38.39	54.51	329
375	49.48	72.88	-3.76	72.98	357



Data for maximum colour (Ma):

L^*	a^*	b^*	C_{90}	H_{90}	u^*_e
000	48.88	66.47	31.67	73.63	25 m846
25	55.85	52.39	47.48	70.12	42 o17y
50	65.45	35.22	58.37	68.17	59 o42y
75	75.19	17.82	69.41	71.66	76 o67y
100	87.03	-3.35	82.83	82.9	92 o92y
125	80.72	-25.01	69.5	73.86	110 y200
150	70.64	-39.54	51.97	65.3	127 y400
175	61.93	-52.1	36.83	63.8	145 y720
200	52.8	-65.28	20.93	68.56	162 y990
225	55.7	-49.58	-8.39	50.28	180 b600
250	57.82	-38.4	-28.92	48.07	217 b720
275	57.53	-22.05	-45.95	50.97	244 c110
300	41.6	1.37	-45.01	45.03	272 c500
325	29.0	25.08	-43.13	49.89	300 v040
350	38.04	46.53	-38.39	54.51	329 v500
375	49.48	72.88	-3.76	72.98	357 m110



Data for maximum colour (Ma):

L^*	a^*	b^*	C_{90}	H_{90}	u^*_e
000	48.88	66.47	31.67	73.63	25 m846
25	55.85	52.39	47.48	70.12	42 o17y
50	65.45	35.22	58.37	68.17	59 o42y
75	75.19	17.82	69.41	71.66	76 o67y
100	87.03	-3.35	82.83	82.9	92 o92y
125	80.72	-25.01	69.5	73.86	110 y200
150	70.64	-39.54	51.97	65.3	127 y400
175	61.93	-52.1	36.83	63.8	145 y720
200	52.8	-65.28	20.93	68.56	162 y990
225	55.7	-49.58	-8.39	50.28	180 b600
250	57.82	-38.4	-28.92	48.07	217 b720
275	57.53	-22.05	-45.95	50.97	244 c110
300	41.6	1.37	-45.01	45.03	272 c500
325	29.0	25.08	-43.13	49.89	300 v040
350	38.04	46.53	-38.39	54.51	329 v500
375	49.48	72.88	-3.76	72.98	357 m110



Data for maximum colour (Ma):

L^*	a^*	b^*	C_{90}	H_{90}	u^*_e
000	48.88	66.47	31.67	73.63	25 m846
25	55.85	52.39	47.48	70.12	42 o17y
50	65.45	35.22	58.37	68.17	59 o42y
75	75.19	17.82	69.41	71.66	76 o67y
100	87.03	-3.35	82.83	82.9	92 o92y
125	80.72	-25.01	69.5	73.86	110 y200
150	70.64	-39.54	51.97	65.3	127 y400
175	61.93	-52.1	36.83	63.8	145 y720
200	52.8	-65.28	20.93	68.56	162 y990
225	55.7	-49.58	-8.39	50.28	180 b600
250	57.82	-38.4	-28.92	48.07	217 b720
275	57.53	-22.05	-45.95	50.97	244 c110
300	41.6	1.37	-45.01	45.03	272 c500
325	29.0	25.08	-43.13	49.89	300 v040
350	38.04	46.53	-38.39	54.51	329 v500
375	49.48	72.88	-3.76	72.98	357 m110



Data for maximum colour (Ma):

L^*	a^*	b^*	C_{90}	H_{90}	u^*_e
000	48.88	66.47	31.67	73.63	25 m846
25	55.85	52.39	47.48	70.12	42 o17y
50	65.45	35.22	58.37	68.17	59 o42y
75	75.19	17.82	69.41	71.66	76 o67y
100	87.03	-3.35	82.83	82.9	92 o92y
125	80.72	-25.01	69.5	73.86	110 y200
150	70.64	-39.54	51.97	65.3	127 y400
175	61.93	-52.1	36.83	63.8	145 y720
200	52.8	-65.28	20.93	68.56	162 y990
225	55.7	-49.58	-8.39	50.28	180 b600
250	57.82	-38.4	-28.92	48.07	217 b720
275	57.53	-22.05	-45.95	50.97	244 c110
300	41.6	1.37	-45.01	45.03	272 c500
325	29.0	25.08	-43.13	49.89	300 v040
350	38.04	46.53	-38.39	54.51	329 v500
375	49.48	72.88	-3.76	72.98	357 m110



Input and output: Colorimetric Printer Reflective System ORS19_96, $L^*=19..96$ for relative CIELAB hue $h^* = \text{lab}^*h^* = h_{90}/360 = 0.164$
data for any colour:
 lab^*h^* and lab^*u^*
Hue texts:
 $u^*_e = r50$ $u^*_d = o42y$
contrast reduction factor:
 $c_R = 1.0$
triangle lightness l^*

ORS19_96a, adapted (a) CIELAB data

L^*	a^*	b^*	C_{90}	H_{90}	u^*_e
000	48.75	65.07	39.43	76.08	31
25	55.85	52.39	47.48	70.12	42
50	65.45	35.22	58.37	68.17	59
75	75.19	17.82	69.41	71.66	76
100	87.03	-3.35	82.83	82.9	92
125	80.72	-25.01	69.5	73.86	110
150	70.64	-39.54	51.97	65.3	127
175	61.93	-52.1	36.83	63.8	145
200	52.8	-65.28	20.93	68.56	162
225	55.7	-49.58	-8.39	50.28	180
250	57.82	-38.4	-28.92	48.07	217
275	57.53	-22.05	-45.95	50.97	244
300	41.6	1.37	-45.01	45.03	272
325	29.0	25.08	-43.13	49.89	300
350	38.04	46.53	-38.39	54.51	329
375	49.48	72.88	-3.76	72.98	357



Data for maximum colour (Ma):

L^*	a^*	b^*	C_{90}	H_{90}	u^*_e
000	48.88	66.47	31.67	73.63	25 m846
25	55.85	52.39	47.48	70.12	42 o17y
50	65.45	35.22	58.37	68.17	59 o42y
75	75.19	17.82	69.41	71.66	76 o67y
100	87.03	-3.35	82.83	82.9	92 o92y
125	80.72	-25.01	69.5	73.86	110 y200
150	70.64	-39.54	51.97	65.3	127 y400
175	61.93	-52.1	36.83	63.8	145 y720
200	52.8	-65.28	20.93	68.56	162 y990
225	55.7	-49.58	-8.39	50.28	180 b600
250	57.82	-38.4	-28.92	48.07	217 b720
275	57.53	-22.05	-45.95	50.97	244 c110
300	41.6	1.37	-45.01	45.03	272 c500
325	29.0	25.08	-43.13	49.89	300 v040
350	38.04	46.53	-38.39	54.51	329 v500
375	49.48	72.88	-3.76	72.98	357 m110



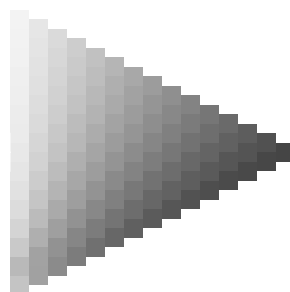
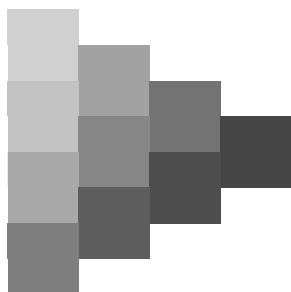
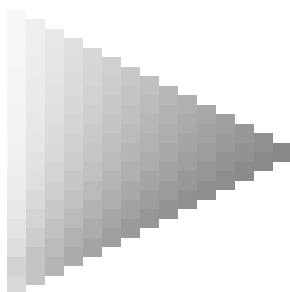
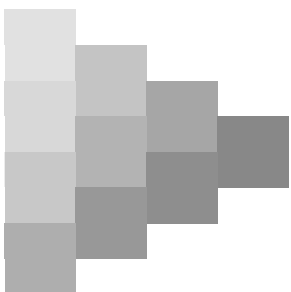
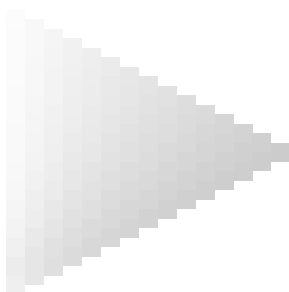
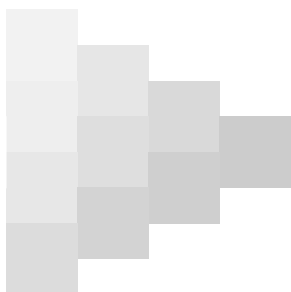
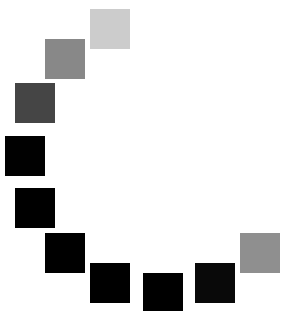
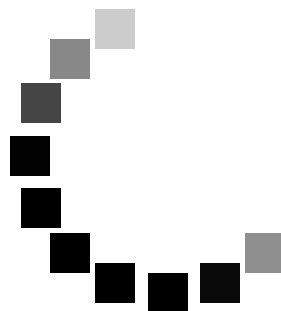
Data for maximum colour (Ma):

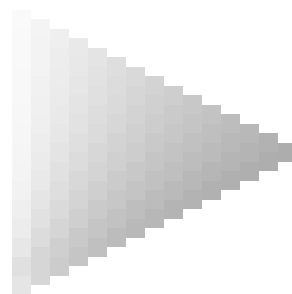
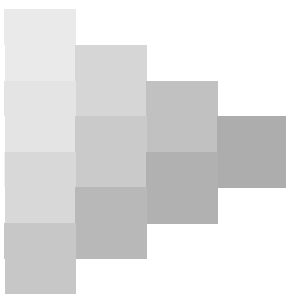
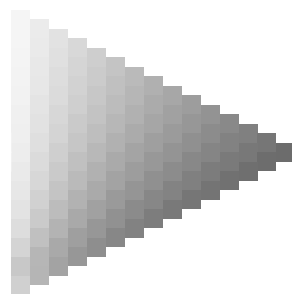
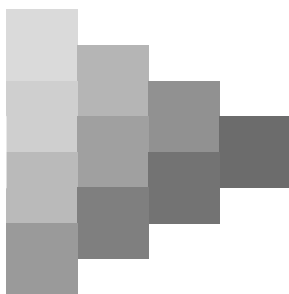
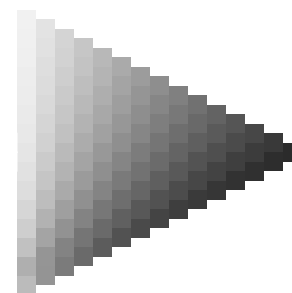
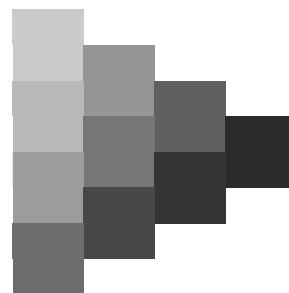
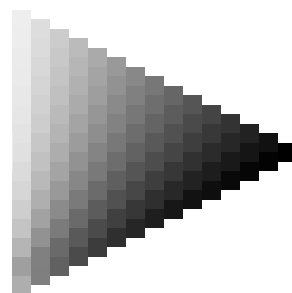
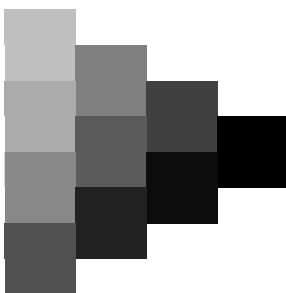
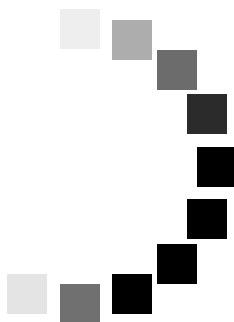
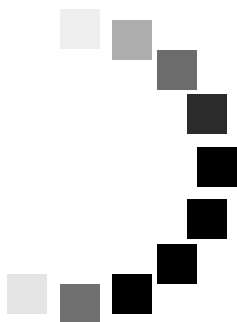
L^*	a^*	b^*	C_{90}	H_{90}	u^*_e
000	48.75	65.07	39.43	76.08	31
25	55.85	52.39	47.48	70.12	42
50	65.45	35.22	58.37	68.17	59
75	75.19	17.82	69.41	71.66	76
100	87.03	-3.35	82.83	82.9	92
125	80.72	-25.01	69.5	73.86	110
150	70.64	-39.54	51.97	65.3	127
175	61.93	-52.1	36.83	63.8	145
200	52.8	-65.28	20.93	68.56	162
225	55.7	-49.58	-8.39	50.28	180
250	57.82	-38.4	-28.92	48.07	217
275	57.53	-22.05	-45.95	50.97	244
300	41.6	1.37	-45.01	45.03	272
325	29.0	25.08	-43.13	49.89	300
350	38.04	46.53	-38.39	54.51	329
375	49.48	72.88	-3.76	72.98	357

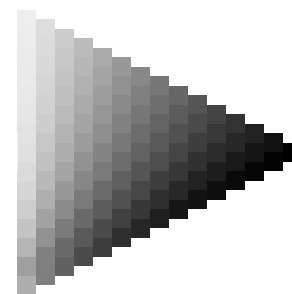
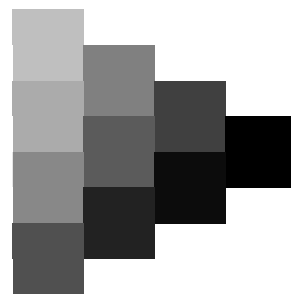
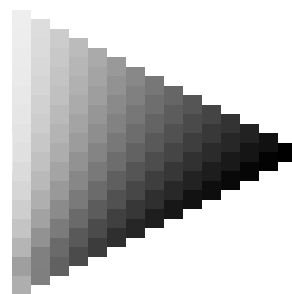
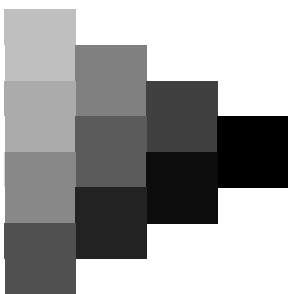
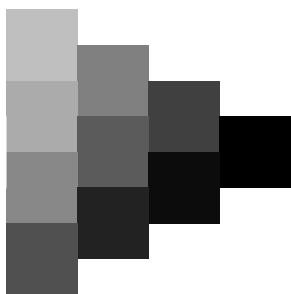
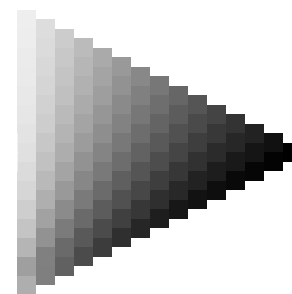
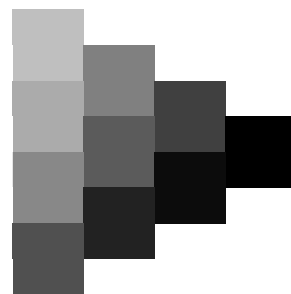
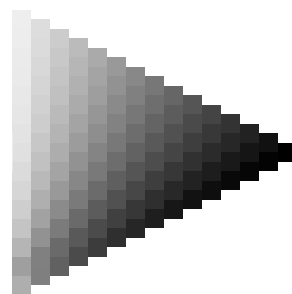
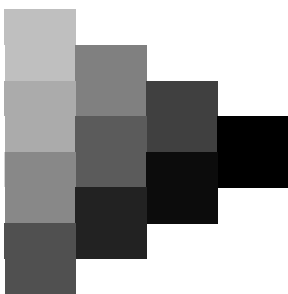
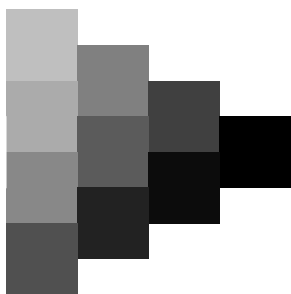
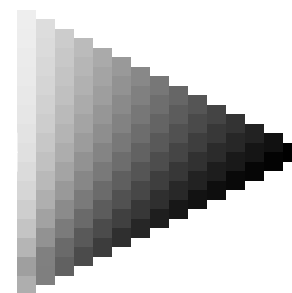
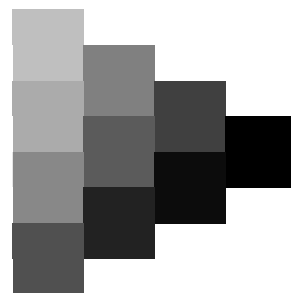
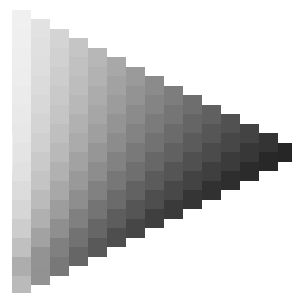
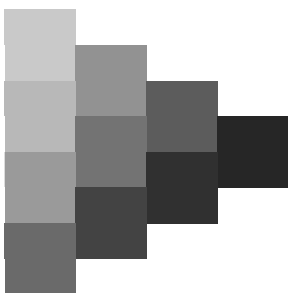
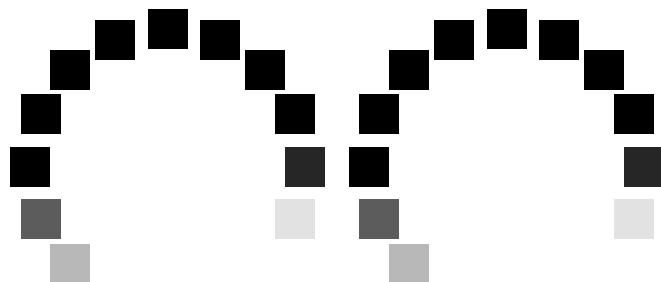


ive System ORS19_96, $L^*=19.96$ for

ORS19_96; adapted (a) CIE Lab data					
	L^*	a^*	b^*	C_{90}	h^*_{90}
O_{Mn}	48.75	60.07	39.43	76.08	31
Y_{Mn}	90.92	-10.29	87.24	87.85	97
X_{Mn}	62.59	-66.44	20.75	68.65	162
Z_{Mn}	59.61	-28.98	-46.22	54.56	238
Y_{Fe}	29.39	23.63	-44.13	50.06	280
X_{Fe}	49.58	73.93	-9.56	74.55	53
Z_{Fe}	18.89	0.0	0.0	0.0	0
N_{Mn}	96.9	0.0	0.0	0.0	0
N_{Fe}	39.92	58.74	27.99	65.07	25
J_{Mn}	81.26	-2.89	71.56	71.62	92
J_{Fe}	52.23	-42.42	13.6	44.55	162
C_{Mn}	30.57	14.1	-46.47	46.49	272







Input and output:
Colorimetric Printer Reflective System ORS19_96a
data for any colour:
 $u^*_r =$ and number no. = 00...15
elementary hue text:
 $u^*_r = 16$ hues $r00$, $r25$, ..., $b75r$
contrast reduction factor:
 $c_R = 1.0$

ORS19_96a, adapted (a) CIELAB data									
L^*	a^*	b^*	C_{ab}^*	h_{ab}^*	L^*	a^*	b^*	C_{ab}^*	h_{ab}^*
000	48.88	66.47	31.67	73.63	25	m846			
010	55.85	52.39	47.48	70.17	42	o17y			
020	65.45	35.22	58.37	68.17	59	o42y			
030	75.19	17.82	69.41	71.66	76	o67y			
040	87.03	-3.35	82.83	82.9	92	o92y			
050	80.72	-25.01	69.5	73.86	110	y200			
060	70.64	-39.54	51.97	65.3	127	y400			
070	61.93	-52.1	36.83	63.8	145	y720			
080	52.8	-65.28	20.93	68.56	162	y990			
090	55.7	-49.58	-8.39	50.28	180	O60			
100	57.82	-38.4	-28.92	48.07	217	I72c			
110	57.9	-55.3	-22.05	-45.95	244	c11v			
120	40.6	41.6	1.37	-45.01	45.03	272	c50v		
130	29.0	25.08	-43.13	49.89	300	v04m			
140	30.4	46.53	-28.39	54.51	329	v50m			
150	49.48	72.88	-3.76	72.98	357	m16			



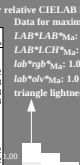
ORS19_96a, adapted (a) CIELAB data									
L^*	a^*	b^*	C_{ab}^*	h_{ab}^*	L^*	a^*	b^*	C_{ab}^*	h_{ab}^*
000	48.88	66.47	31.67	73.63	25	m846			
010	55.85	52.39	47.48	70.17	42	o17y			
020	65.45	35.22	58.37	68.17	59	o42y			
030	75.19	17.82	69.41	71.66	76	o67y			
040	87.03	-3.35	82.83	82.9	92	o92y			
050	80.72	-25.01	69.5	73.86	110	y200			
060	70.64	-39.54	51.97	65.3	127	y400			
070	61.93	-52.1	36.83	63.8	145	y720			
080	52.8	-65.28	20.93	68.56	162	y990			
090	55.7	-49.58	-8.39	50.28	180	O60			
100	57.82	-38.4	-28.92	48.07	217	I72c			
110	57.9	-55.3	-22.05	-45.95	244	c11v			
120	40.6	41.6	1.37	-45.01	45.03	272	c50v		
130	29.0	25.08	-43.13	49.89	300	v04m			
140	30.4	46.53	-28.39	54.51	329	v50m			
150	49.48	72.88	-3.76	72.98	357	m16			



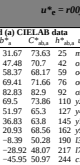
Input and output:
Colorimetric Printer Reflective System ORS19_96, $L^*=19..96$ for relative CIELAB hue $h^* = \text{lab}^*h^* = h_{ab}/360 = 0.071$
data for any colour:
 lab^*h^* and lab^*u^*
Hue texts:
 $u^*_r = r00$ $u^*_g = m846$
contrast reduction factor:
 $c_R = 1.0$
triangle lightness l^*



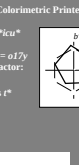
ORS19_96a, adapted (a) CIELAB data									
L^*	a^*	b^*	C_{ab}^*	h_{ab}^*	L^*	a^*	b^*	C_{ab}^*	h_{ab}^*
000	48.88	66.47	31.67	73.63	25	m846			
010	55.85	52.39	47.48	70.17	42	o17y			
020	65.45	35.22	58.37	68.17	59	o42y			
030	75.19	17.82	69.41	71.66	76	o67y			
040	87.03	-3.35	82.83	82.9	92	o92y			
050	80.72	-25.01	69.5	73.86	110	y200			
060	70.64	-39.54	51.97	65.3	127	y400			
070	61.93	-52.1	36.83	63.8	145	y720			
080	52.8	-65.28	20.93	68.56	162	y990			
090	55.7	-49.58	-8.39	50.28	180	O60			
100	57.82	-38.4	-28.92	48.07	217	I72c			
110	57.9	-55.3	-22.05	-45.95	244	c11v			
120	40.6	41.6	1.37	-45.01	45.03	272	c50v		
130	29.0	25.08	-43.13	49.89	300	v04m			
140	30.4	46.53	-28.39	54.51	329	v50m			
150	49.48	72.88	-3.76	72.98	357	m16			



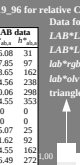
ORS19_96a, adapted (a) CIELAB data									
L^*	a^*	b^*	C_{ab}^*	h_{ab}^*	L^*	a^*	b^*	C_{ab}^*	h_{ab}^*
000	48.88	66.47	31.67	73.63	25	m846			
010	55.85	52.39	47.48	70.17	42	o17y			
020	65.45	35.22	58.37	68.17	59	o42y			
030	75.19	17.82	69.41	71.66	76	o67y			
040	87.03	-3.35	82.83	82.9	92	o92y			
050	80.72	-25.01	69.5	73.86	110	y200			
060	70.64	-39.54	51.97	65.3	127	y400			
070	61.93	-52.1	36.83	63.8	145	y720			
080	52.8	-65.28	20.93	68.56	162	y990			
090	55.7	-49.58	-8.39	50.28	180	O60			
100	57.82	-38.4	-28.92	48.07	217	I72c			
110	57.9	-55.3	-22.05	-45.95	244	c11v			
120	40.6	41.6	1.37	-45.01	45.03	272	c50v		
130	29.0	25.08	-43.13	49.89	300	v04m			
140	30.4	46.53	-28.39	54.51	329	v50m			
150	49.48	72.88	-3.76	72.98	357	m16			



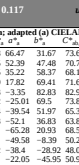
ORS19_96a, adapted (a) CIELAB data									
L^*	a^*	b^*	C_{ab}^*	h_{ab}^*	L^*	a^*	b^*	C_{ab}^*	h_{ab}^*
000	48.88	66.47	31.67	73.63	25	m846			
010	55.85	52.39	47.48	70.17	42	o17y			
020	65.45	35.22	58.37	68.17	59	o42y			
030	75.19	17.82	69.41	71.66	76	o67y			
040	87.03	-3.35	82.83	82.9	92	o92y			
050	80.72	-25.01	69.5	73.86	110	y200			
060	70.64	-39.54	51.97	65.3	127	y400			
070	61.93	-52.1	36.83	63.8	145	y720			
080	52.8	-65.28	20.93	68.56	162	y990			
090	55.7	-49.58	-8.39	50.28	180	O60			
100	57.82	-38.4	-28.92	48.07	217	I72c			
110	57.9	-55.3	-22.05	-45.95	244	c11v			
120	40.6	41.6	1.37	-45.01	45.03	272	c50v		
130	29.0	25.08	-43.13	49.89	300	v04m			
140	30.4	46.53	-28.39	54.51	329	v50m			
150	49.48	72.88	-3.76	72.98	357	m16			



ORS19_96a, adapted (a) CIELAB data									
L^*	a^*	b^*	C_{ab}^*	h_{ab}^*	L^*	a^*	b^*	C_{ab}^*	h_{ab}^*
000	48.88	66.47	31.67	73.63	25	m846			
010	55.85	52.39	47.48	70.17	42	o17y			
020	65.45	35.22	58.37	68.17	59	o42y			
030	75.19	17.82	69.41	71.66	76	o67y			
040	87.03	-3.35	82.83	82.9	92	o92y			
050	80.72	-25.01	69.5	73.86	110	y200			
060	70.64	-39.54	51.97	65.3	127	y400			
070	61.93	-52.1	36.83	63.8	145	y720			
080	52.8	-65.28	20.93	68.56	162	y990			
090	55.7	-49.58	-8.39	50.28	180	O60			
100	57.82	-38.4	-28.92	48.07	217	I72c			
110	57.9	-55.3	-22.05	-45.95	244	c11v			
120	40.6	41.6	1.37	-45.01	45.03	272	c50v		
130	29.0	25.08	-43.13	49.89	300	v04m			
140	30.4	46.53	-28.39	54.51	329	v50m			
150	49.48	72.88	-3.76	72.98	357	m16			

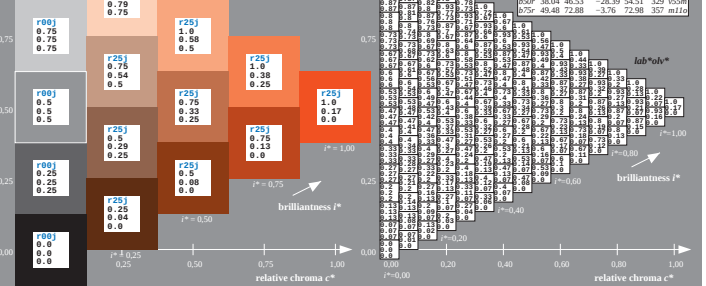


ORS19_96a, adapted (a) CIELAB data									
L^*	a^*	b^*	C_{ab}^*	h_{ab}^*	L^*	a^*	b^*	C_{ab}^*	h_{ab}^*
000	48.88	66.47	31.67	73.63	25	m846			
010	55.85	52.39	47.48	70.17	42	o17y			
020	65.45	35.22	58.37	68.17	59	o42y			
030	75.19	17.82	69.41	71.66	76	o67y			
040	87.03	-3.35	82.83	82.9	92	o92y			
050	80.72	-25.01	69.5	73.86	110	y200			
060	70.64	-39.54	51.97	65.3	127	y400			
070	61.93	-52.1	36.83	63.8	145	y720			
080	52.8	-65.28	20.93	68.56	162	y990			
090	55.7	-49.58	-8.39	50.28	180	O60			
100	57.82	-38.4	-28.92	48.07	217	I72c			
110	57.9	-55.3	-22.05	-45.95	244	c11v			
120	40.6	41.6	1.37	-45.01	45.03	272	c50v		
130	29.0	25.08	-43.13	49.89	300	v04m			
140	30.4	46.53	-28.39	54.51	329	v50m			
150	49.48	72.88	-3.76	72.98	357	m16			

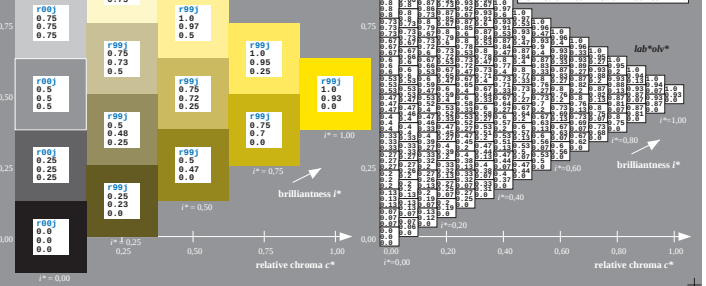


Input and output: Colorimetric data for the test sample (ORS19_96a) and the reference system (CIE1931) for relative CIE1931 hue $h^* = b^*/a^*$ and $b^*/a^* = 0.164$ for that colour:												
$\text{lab}^*(x)$ and $\text{lab}^*(y)$	ORS19_96a, adapted (a) CIE1AB data				LAB*/LABM data for CIE1931				ORS19_96a, adapted (a) CIE1AB data			
Hue lines: $y = c(x)$	L^*	a^*	b^*	C_{ab}^*	L^*	a^*	b^*	C_{ab}^*	L^*	a^*	b^*	C_{ab}^*
contrast reduction factor:												
$\triangle$ triangle lightness *												
1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.0					

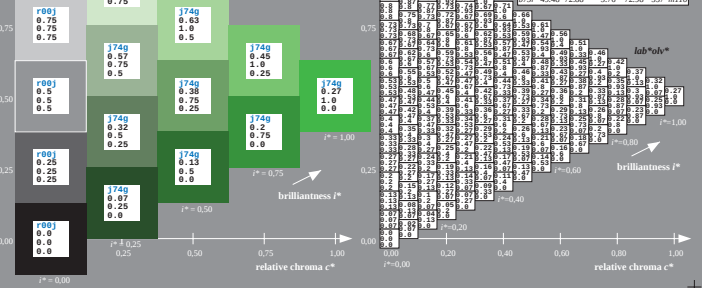
adapted (a)		CIELAB data		
a^*	b^*	C^*_{ab}	h^*_{ab}	u^*_e
66.47	31.67	73.63	25	m84o
52.39	47.48	70.7	42	o17y
35.22	58.37	68.17	59	o42y
17.82	69.41	71.66	76	o67y
-3.35	82.83	82.9	92	o92y
-25.01	69.5	73.86	110	y20l
-39.54	51.97	65.3	127	y46l
-52.1	36.83	63.8	145	y72l
-65.28	20.93	68.56	162	y99l
-49.58	-8.39	50.28	190	o36c
-38.4	-28.92	48.07	217	l72c
-22.05	-45.95	50.97	244	cl1y
-1.37	-45.01	45.03	272	c56v
-25.08	-43.13	49.89	300	v04m

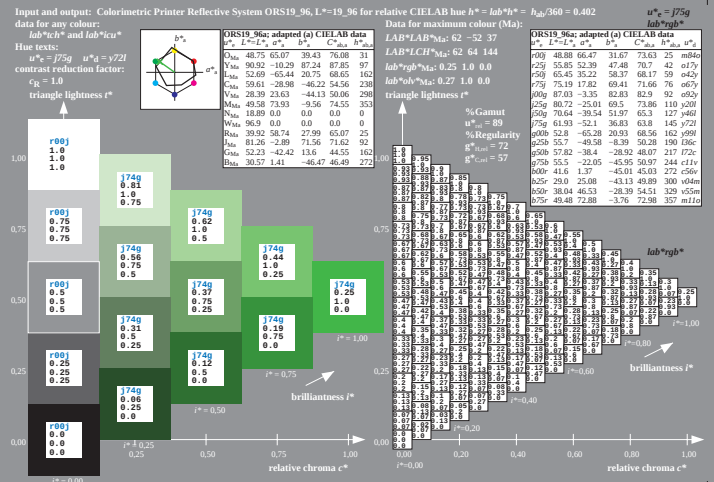
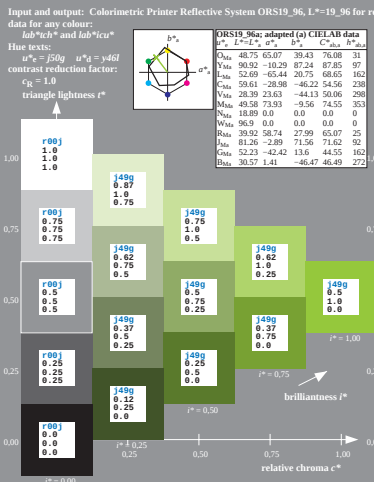
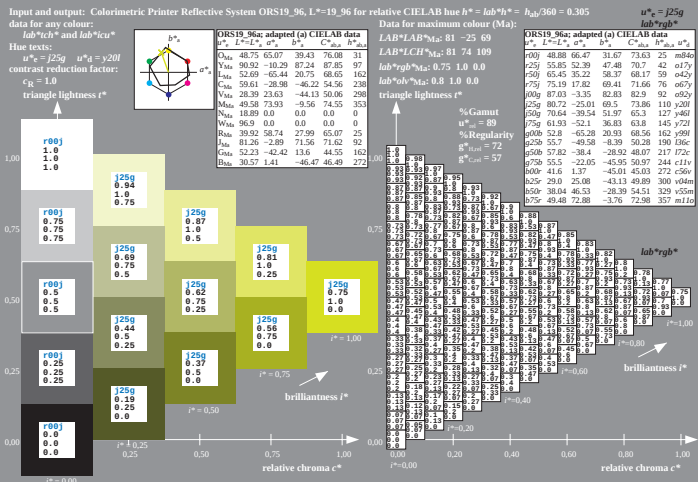
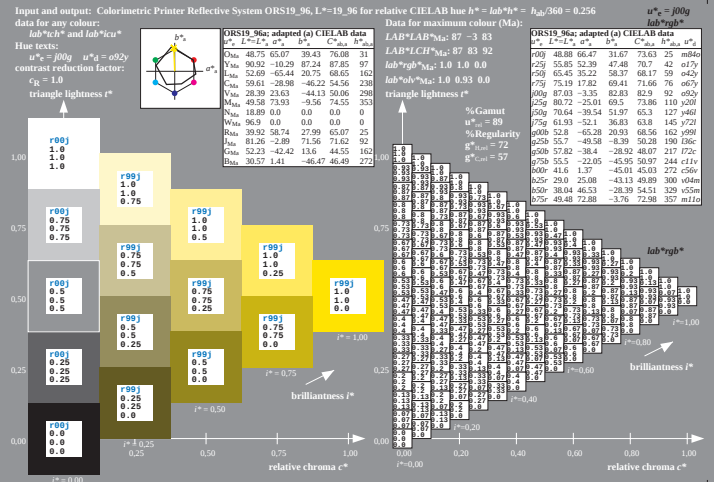
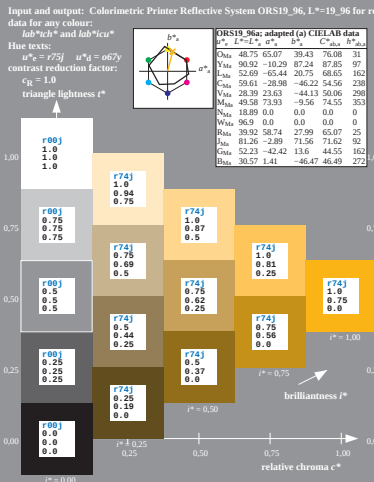
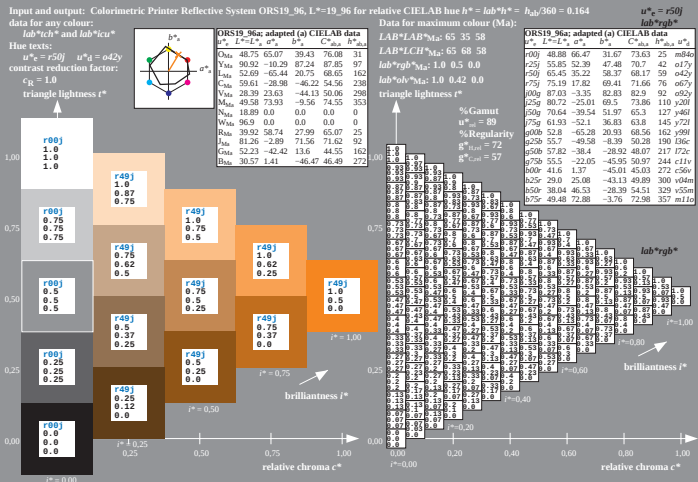
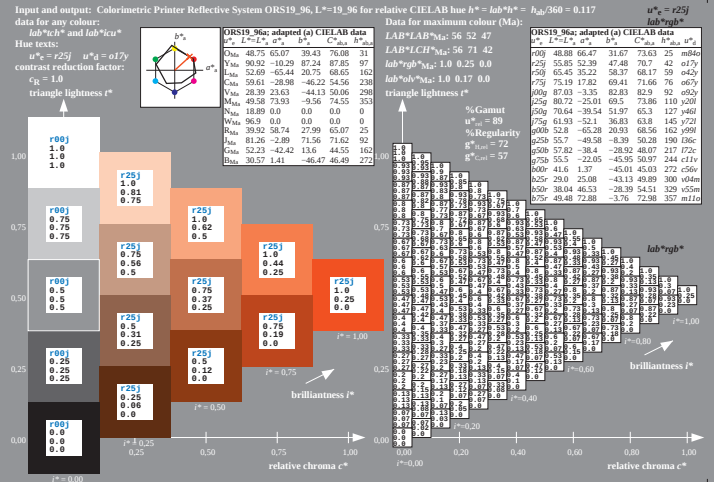
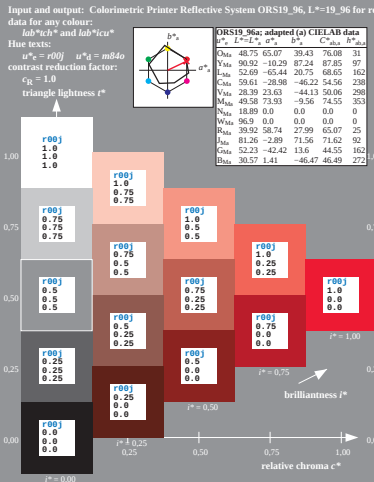
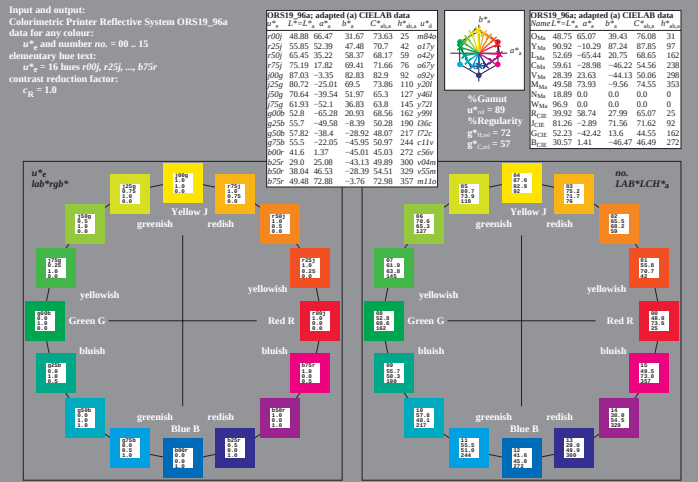


adapted (a) CIELAB data				
a^*	b^*	c^*	h^*	α^*
66.47	31.67	73.63	25	m840
52.39	47.48	70.7	42	o17y
65.22	58.37	68.17	59	o42z
17.82	69.41	71.66	76	o67y
-3.35	82.83	82.9	92	o92z
-25.01	69.55	73.86	110	y20f
-39.54	51.97	65.3	127	y46f
-52.1	36.83	63.8	145	y72f
-65.28	20.93	68.56	162	y97f
-75.58	-8.39	50.28	179	z23b
-38.4	-28.92	48.07	247	172c
-22.05	-49.85	50.97	244	11c
-1.37	-45.01	45.03	272	v56m
-25.08	-43.13	49.89	300	v44d
-76.53	-28.39	54.51	329	v55m
72.88	-3.76	72.98	357	m11o



$u^*e = j75g$ $lab^{*}olv^{*}$					
adapted (a) CIELAB data					
a^*	b^*	x_{363}	y_{454}	h^*	ab^*u^*
66.47	31.67	73.63	25	m840	
62.39	47.48	70.7	42	o17y	
65.22	58.37	68.17	59	o42y	
67.82	69.41	71.66	76	o67y	
-3.35	82.83	82.9	92	o92y	
-25.01	69.5	73.86	110	y20l	
-39.54	51.97	65.3	127	y46l	
-52.1	36.83	63.5	145	y72l	
-65.28	20.93	68.86	162	y99l	
-49.58	-8.39	50.28	190	i36c	
-38.4	-28.92	40.07	217	i72c	
-22.05	-45.95	30.97	244	i1c	
-15.08	-43.03	30.89	260	c56v	
-10.58	-45.13	49.89	280	v04m	
-25.08	-28.39	54.51	329	v55m	
72.88	-3.76	72.98	357	m14l	





[illegible]

$\chi^2/360 = 0.256$

$u^* = 100g$

LAB^*LAB^*

TABLE 1. u^* and a^* CIELAB data

u^*	a^*	b^*	C_{10}	C_{10}^*	b^*/a^*	b^*/a^*	b^*/a^*
40.88	66.47	31.67	73.63	25	m840		
55.85	52.39	47.48	70.7	42	o17y		
65.45	35.22	58.37	68.17	59	o42y		
75.19	17.82	69.41	71.66	76	o67y		
87.03	-3.35	82.83	80.3	92	o92y		
80.72	-25.05	65.95	73.86	110	y20		
70.64	-39.54	51.97	65.3	127	y46		
61.93	-52.21	36.83	63.8	145	y72l		
52.8	-65.28	23.93	68.56	162	y99l		
57.82	-49.58	-8.39	50.28	190	106c		
53.87	-38.4	-26.92	48.07	217	127c		
55.5	-22.05	-45.95	50.97	244	141c		
40.1	-41.6	-37	-45.01	45.03	272	c56v	



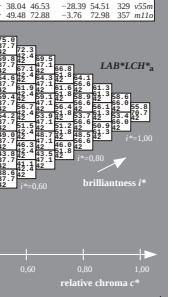
$U^B = J75g$
 $LAB^B LAB^B$

CRS19.96: adapted (a) CIELAB data

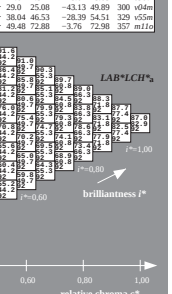
	L^*	a^*	b^*	C_{ab}^*	h_{ab}^*	m
300	48.88	66.47	31.67	73.63	25	m84o
325	55.85	52.39	47.48	70.7	42	o17y
350	65.45	35.22	58.37	68.17	59	o42y
375	75.19	17.82	69.41	71.66	76	o67y
400	87.03	-3.35	82.83	82.9	92	o92y
425	95.1	-12.72	93.76	93.86	109	o117y
450	70.64	-39.54	51.97	65.33	127	y46g
475	61.93	-52.1	36.83	63.83	145	y72l
500	52.18	-65.28	20.93	68.56	162	y99l
525	55.7	-49.58	-8.39	50.28	190	136c
550	57.82	-38.4	-28.92	40.82	217	172c
575	55.5	-15.05	-49.95	50.74	244	206m
600	41.6	13.7	-45.01	45.03	272	256m
625	29.0	25.92	-43.13	49.89	300	340v



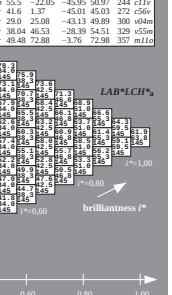
19.96a; adapted (a) CIELAB data		$u^* = 125j$ $LAB^* = RCH$	
$L^* = L^*_a$	$a^* = a^*_a$	C^*_{ab}	h^*_{ab}
48.88	66.47	31.67	73.63
55.85	52.39	47.48	70.7
65.45	35.22	58.37	68.16
75.19	17.82	69.41	71.67
82.93	-3.35	82.93	75.04
87.02	-25.01	69.5	73.86
70.64	-39.54	51.97	65.3
61.93	-52.1	36.83	63.8
52.8	-65.28	20.93	68.56
55.7	-49.58	5.39	50.28
57.82	-38.8	-28.92	40.7
59.5	-27.05	-45.93	21.72
41.6	1.37	-45.01	45.03
29.0	25.08	-43.13	49.89



19.96%; adapted (a) CIELAB data		$u^*_n = 100\%$ LAB^*ICM^*	
L^*	a^*	b^*	h^*
48.88	66.47	31.67	73.63
55.85	52.39	47.48	70.7
68.45	35.22	58.37	68.17
75.19	17.82	69.41	71.66
87.03	-3.35	82.63	82.82
80.72	-25.01	95.5	73.86
60.64	-39.54	51.97	65.3
71.93	-51.21	36.83	63.8
52.8	-65.28	20.93	58.56
55.7	-49.58	-8.39	50.28
47.82	-38	-28.92	48.07
55.5	-22.05	-45.95	50.97
41.6	-3.7	-45.01	45.03

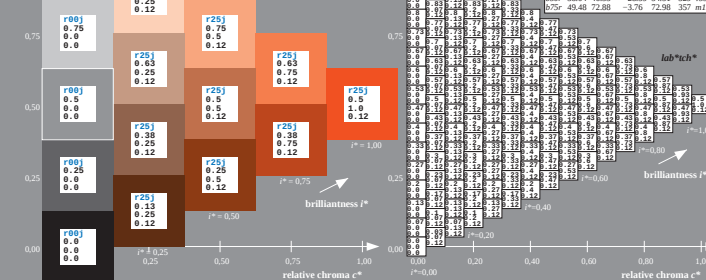


Relative ionization					
$\lambda_{\text{LAB}}^* = j75q$ $\text{L}^{\text{AB}} \times \text{I}^{\text{CH}} \times \alpha$					
19.96%; adopted (a) CIEB data					
$\text{L}^{\text{AB}} \times \text{L}^{\text{AB}}$	α^{AB}	α^{AB}	C^{AB}	h^{AB}	u^{AB}
48.88	66.47	31.67	73.63	25	m84o
55.85	52.39	47.48	70.7	42	o17y
65.45	35.22	58.37	68.17	59	o42y
75.19	17.82	69.41	71.66	76	o67y
87.03	-3.35	82.83	82.9	92	o95y
96.25	-25.25	69.5	82.5	105	o107y
70.64	-39.54	51.97	65.3	127	o46y
61.93	-52.1	36.83	63.8	145	y271
52.18	-65.28	20.93	68.56	162	y921
55.7	-49.58	-8.39	50.28	190	136c
57.82	-38.4	-28.92	48.07	217	172c

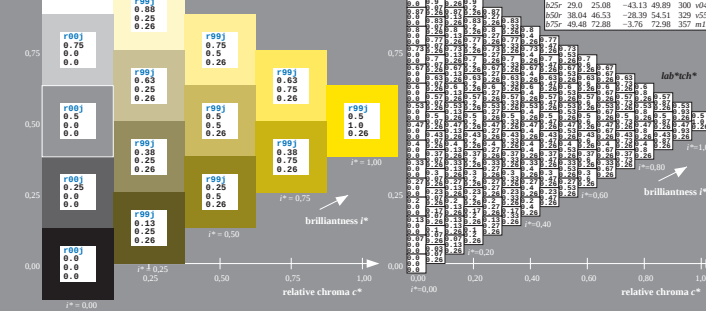


$\alpha_{360} = 0.17$ $u_{360} = r25j$
 $lab^{**} =$
 RS19 96a; adapted (a) CIELAB data
 $L^* = L^*, a^* = a^*, b^* = b^*$ $C_h^* = C_h^*, h^* = h^*$

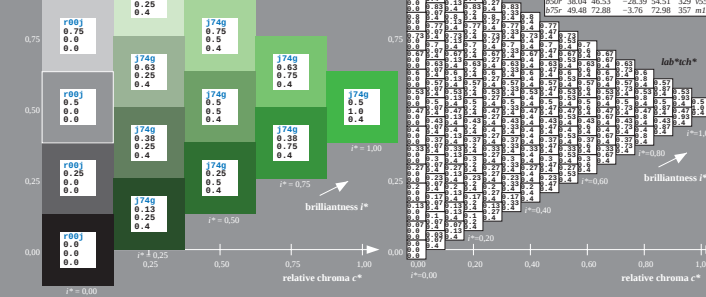
00	48.88	66.47	31.67	73.63	25	m17a	
01	55.85	52.39	41.76	70.7	42	o84	
02	65.45	35.22	58.37	68.17	59	o42y	
03	75.19	17.82	69.41	64.1	79	o22y	
04	80.73	-3.35	82.83	82.9	92	o2y	
05	80.72	-25.01	69.5	73.86	110	y20l	
06	70.64	-39.54	51.97	65.3	127	y44l	
07	61.93	-52.1	36.83	63.8	145	y72l	
08	52.8	-65.25	22.8	61.8	163	y99l	
09	43.9	-75.58	9.39	60.28	190	y99l	
10	36.72	-82.38	-28.92	48.07	217	l72c	
11	35.5	-22.05	-45.95	50.97	244	c11v	
12	40.1	41.6	37	-45.01	40.5	272	c56v
13	29.0	25.08	-43.13	49.89	300	v40m	

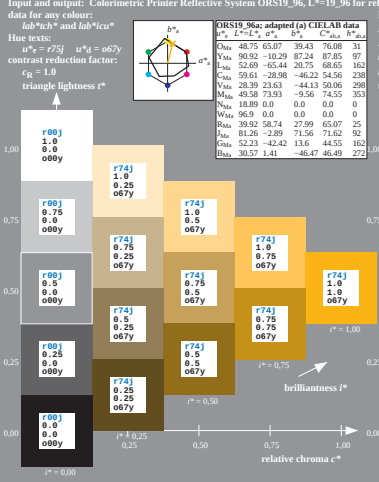
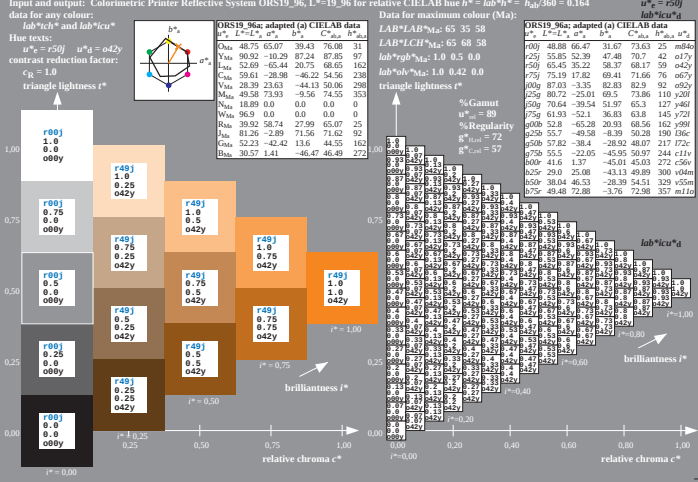
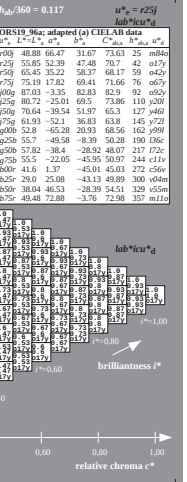
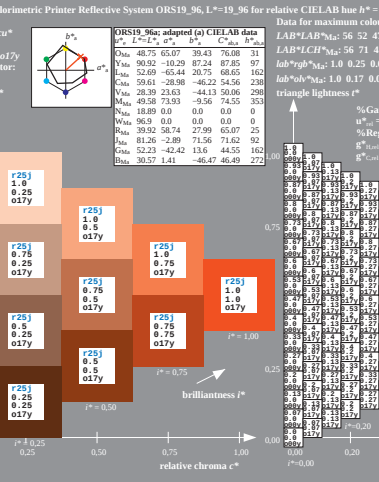
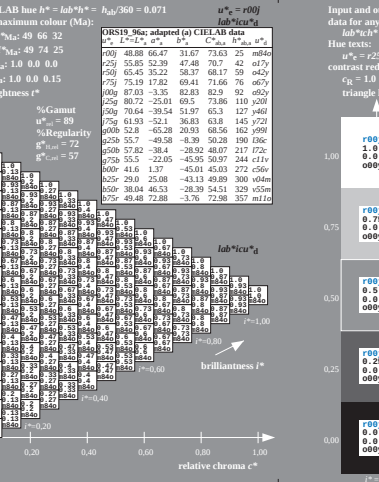
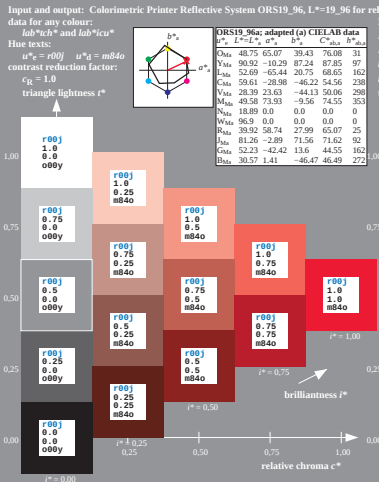
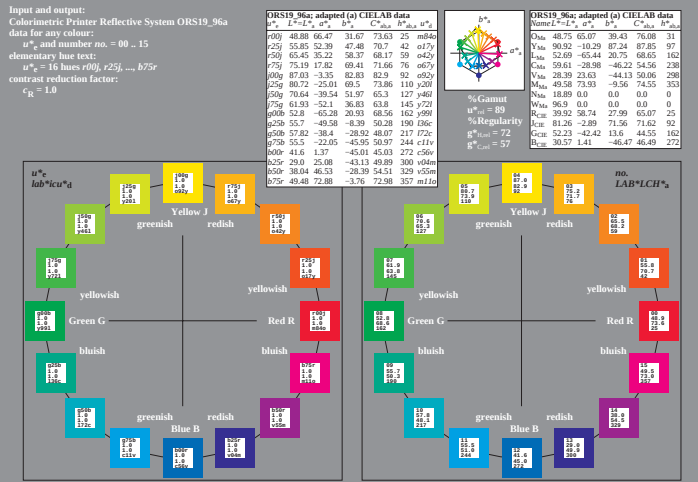


$\lambda_{\text{360}} = 0.256$	$u^*_{\text{e}} = 100g$	$lab^{*}uch^{*}$
RS19_366; adapted (a) CIELAB data		
L^{*}	C^{*}	h^{*}
48.68	66.47	31.67
73.63	25	m84a
55.85	52.32	48.48
70.7	42	o17g
65.45	35.59	68.17
59	50	o17g
75.19	17.82	69.41
71.66	76	o62y
87.03	-3.35	82.83
82.9	92	o67y
70.72	-25.04	69.5
73.86	110	u21g
70.64	-3.64	71.29
65.3	127	o63y
61.93	-52.11	51.87
68	145	y72l
50.8	-65.28	20.93
68.56	162	y99l
55.7	-49.58	-8.39
50.28	190	i36c
57.82	-38.4	-28.92
48.42	207	i72c
55.5	22.05	-45.95
50.97	244	c11v

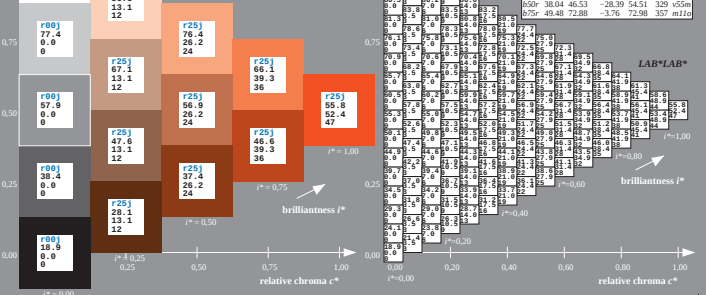


RS19_36a; adapted (a) CIELAB data	$u^*_s = .175g$ lab^*ch^*
L^* a^* b^* L^* a^* b^* L^* a^* b^*	
40.88 66.42 3.47	73.63 25 m84
55.85 52.39 4.18	70.7 42 o17a
65.45 35.22 5.83	68.17 59 o62y
75.19 17.82 6.91	71.66 76 oc7y
83.03 5.45 8.28	83.83 88 oc7y
80.72 -25.01 6.95	73.86 110 y20l
70.64 -39.64 5.19	65.3 127 y60l
61.93 -52.11 36.83	63.8 145 y72l
52.8 -65.28 20.93	68.52 166 y91l
45.55 -49.58 -8.39	50.28 190 l36c
57.82 -57.82 57.82	48.28 240 l48c
55.5 -25.25 -45.5	50.97 244 v11a
41.6 1.37 -45.01 45.03	27.2 c56v
29.0 25.08 -43.13	49.89 300 v40m

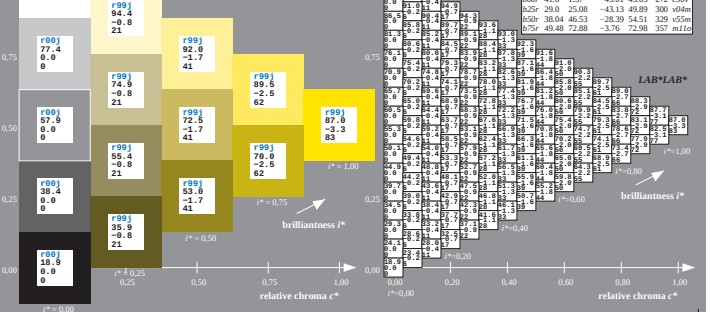




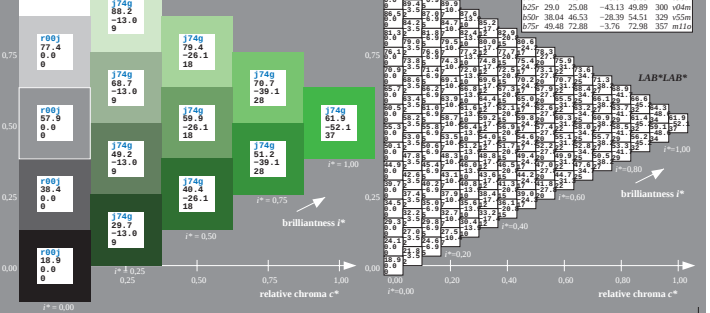
1996a; adapted (a) CIELAB data		$u^*_n = r25j$ LAB*LAB*	
L^*	a^*	C^*	h_{ab}
48.88	66.47	31.67	73.63
55.85	52.39	47.48	70.7
65.45	35.22	58.87	68.17
75.19	17.82	63.41	71.66
70.93	-3.35	82.83	67.5
70.62	-25.01	69.5	73.86
70.64	-39.54	51.97	65.3
61.53	-52.1	36.83	63.8
52.8	-65.28	23.93	63.56
45.97	-49.58	-8.59	50.28
42.32	-38.3	-28.92	48.07
55.5	-22.05	-43.95	50.7
41.6	3.17	-45.01	45.03
29.0	25.08	-43.13	48.93



19.96%; adapted (a) CIELAB data			$u^* = .j00g$ LAB^*LAB^*		
L^*	a^*	b^*	L^*	a^*	b^*
48.88	66.47	31.67	73.63	25	m840
55.85	52.39	47.48	70.7	42	o17y
55.85	52.32	58.37	68.17	59	o42y
75.19	17.82	69.41	71.66	76	o67y
75.19	-3.35	62.83	68.17	76	o26y
80.72	-25.01	69.5	8.36	110	y22
70.64	-39.54	51.97	65.53	127	y46l
61.93	-52.1	36.83	63.8	145	y72l
52.8	-65.28	20.93	58.56	162	y99l
55.7	-49.58	8.39	60.18	190	i36c
57.47	-38.4	-28.92	48.07	217	i72c
55.3	-22.05	-45.95	50.9	244	i11c
41.6	-12.9	-59.9	45.03	271	i31c



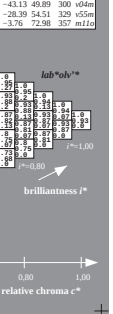
19.96a; adapted (a) CIELAB data		$w_e^* = .75q$ LAB*LAB*	
L^*	a^*	b^*	h^*
48.88	66.47	31.67	73.63
55.85	52.39	47.48	70.7
65.45	35.22	58.37	68.17
73.19	17.82	69.41	62.9
87.03	-3.35	82.83	82.9
80.72	-25.01	69.5	73.86
70.64	-39.54	51.97	65.3
61.31	-52.1	36.83	63.8
52.8	-65.28	20.93	68.56
55.7	-49.58	-8.39	50.28
42.82	-38.8	-28.92	71.67
55.5	-22.05	-45.95	50.97
41.6	-3.7	-45.01	45.03



$u_e^* = r25j$ lab^*olv^*			
a^*	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_a
31.67	73.63	25	m84o
47.48	70.7	42	o17y
58.37	68.17	59	o42y
69.41	71.66	76	o67y
82.83	82.9	92	o92y
69.5	73.86	110	y20l
51.97	65.3	127	y46l
36.83	63.8	145	y72l
20.93	68.56	162	y99l
-8.39	50.28	190	i36c
-28.92	48.07	217	i72c
-45.95	50.97	244	c11v
-45.01	45.03	272	c56v
-43.13	49.89	300	y04m



$u^*_e = 100g$ lab^*o/v^*			
(a) CIELAB data			
a^*_s	$C^*_{ab,s}$	$h^*_{ab,s}$	u^*_s
31.67	73.63	25	m84o
47.48	70.7	42	o17y
58.37	68.17	59	o42y
69.41	71.66	76	o67y
82.83	82.9	92	o92y
69.5	73.86	110	y20z
51.97	65.3	127	y46l
36.83	63.8	145	y72l
20.93	68.56	162	y99l
-8.39	50.28	190	l36c
-28.92	48.07	217	l72c
-45.95	50.97	244	cl1v
-45.01	45.03	272	c56v



$u^*_e = j75g$ $lab^*ol^*v^*$			
(a) CIELAB data			
L^*_{ab}	C^*_{ab}	h^*_{ab}	u^*_e
31.67	73.63	25	m84o
47.48	70.7	42	o17y
58.37	68.17	59	o42y
69.41	71.66	76	o67y
82.83	82.9	92	o92y
69.5	73.86	110	y20l
51.97	65.3	127	y46l
36.83	63.8	145	y72l
20.93	68.56	162	y99l
-8.39	50.28	190	i36c
-28.92	48.07	217	i72c
-45.95	50.97	244	c11v
-45.01	45.03	272	c56v
-43.13	49.89	300	v04m

