

Colour stimuli according to ISO/IEC 15775 (offset) and of BAM-2005 test charts

Device (d) colours, see names in CIE R8-09, and ISO/IEC 15775	Offset printing (o) Tristimulus values			Offset printing (o) CIELAB data			BAM-test charts CIELAB data			ΔE^*_{ab}
	X_0	Y_0	Z_0	L^*_{00}	a^*_{00}	b^*_{00}	L^*_{d0}	a^*_{d0}	b^*_{d0}	
$C=C_d$ cyan blue (cyan)	18,74	26,62	68,54	58,62	-30,63	-42,75	58,09	-32,78	-44,14	2,62
$M=M_d$ magenta red (magenta)	33,06	16,90	22,01	48,13	75,20	-6,80	46,88	75,30	-8,74	2,31
$Y=Y_d$ yellow	68,06	77,10	9,03	90,37	-11,16	96,17	88,56	-6,91	95,35	4,69
$O=R_d$ orange red (red)	33,13	16,75	2,68	47,94	65,31	52,07	50,78	66,45	53,75	3,49
$L=G_d$ leaf green (green)	8,71	19,18	6,62	50,90	-62,96	36,71	49,24	-60,02	37,66	3,51
$V=B_d$ violet blue (blue)	7,17	4,65	21,41	25,72	31,35	-44,36	28,18	32,61	-42,38	3,40
W white	83,69	88,60	89,47	95,41	-0,98	4,76	94,50	-1,38	5,57	1,28
N black	2,42	2,52	2,81	18,01	0,50	-0,46	19,14	4,32	0,26	4,05

Source: Kittelmann (2005), Diploma work, TU Berlin

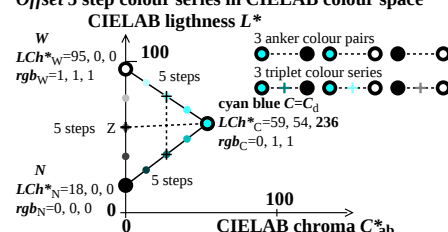
1-000030-L0

XE140-1

rgb_d input and LCh^*_{da} output of Offset colours

Device colour	rgb_d	LCh^*_{d0}
$C=C_d$ cyan blue (cyan)	0 1 1	59, 54, 236
$V=B_d$ violet blue (blue)	0 0 1	26, 54, 304
$M=M_d$ magenta red (magenta)	1 0 1	48, 76, 353
$O=R_d$ orange red (red)	1 0 0	48, 83, 37
$Y=Y_d$ yellow	1 1 0	90, 92, 96
$L=G_d$ leaf green (green)	0 1 0	51, 72, 150
N black	0 0 0	95, 0, 0
W white	1 1 1	18, 0, 0

Offset 5 step colour series in CIELAB colour space

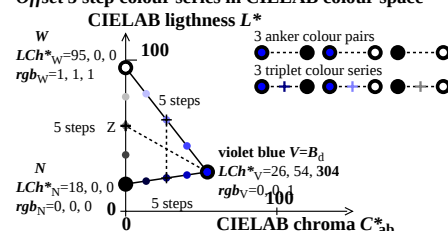


XE140-3N

rgb_d input and LCh^*_{da} output of Offset colours

Device colour	rgb_d	LCh^*_{d0}
$C=C_d$ cyan blue (cyan)	0 1 1	59, 54, 236
$V=B_d$ violet blue (blue)	0 0 1	26, 54, 304
$M=M_d$ magenta red (magenta)	1 0 1	48, 76, 353
$O=R_d$ orange red (red)	1 0 0	48, 83, 37
$Y=Y_d$ yellow	1 1 0	90, 92, 96
$L=G_d$ leaf green (green)	0 1 0	51, 72, 150
N black	0 0 0	95, 0, 0
W white	1 1 1	18, 0, 0

Offset 5 step colour series in CIELAB colour space

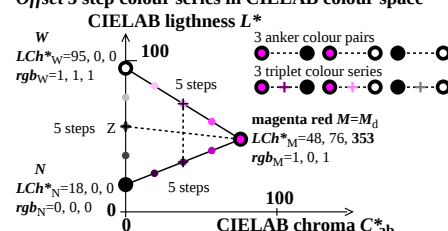


XE140-5N

rgb_d input and LCh^*_{da} output of Offset colours

Device colour	rgb_d	LCh^*_{d0}
$C=C_d$ cyan blue (cyan)	0 1 1	59, 54, 236
$V=B_d$ violet blue (blue)	0 0 1	26, 54, 304
$M=M_d$ magenta red (magenta)	1 0 1	48, 76, 353
$O=R_d$ orange red (red)	1 0 0	48, 83, 37
$Y=Y_d$ yellow	1 1 0	90, 92, 96
$L=G_d$ leaf green (green)	0 1 0	51, 72, 150
N black	0 0 0	95, 0, 0
W white	1 1 1	18, 0, 0

Offset 5 step colour series in CIELAB colour space



XE140-7N

Colour stimuli according to ISO/IEC 15775 (offset) and of BAM-2005 test charts

Device (d) colours, see names in CIE R8-09, and ISO/IEC 15775	Offset printing (o) adapted (a) CIELAB data					Samples of BAM-test charts adapted (a) CIELAB data				
	L^*_{0a}	a^*_{0a}	b^*_{0a}	$C^*_{ab,0a}$	$h_{ab,0a}$	L^*_{da}	a^*_{da}	b^*_{da}	$C^*_{ab,da}$	$h_{ab,da}$
$C=C_d$ cyan blue (cyan)	58.62	-30.35	-45.02	54.3	236	58.09	-34.15	-47.14	58.21	234
$M=M_d$ magenta red (magenta)	48.13	75.27	-8.37	75.73	353	46.88	73.07	-10.95	73.89	351
$Y=Y_d$ yellow	90.37	-10.27	91.74	92.32	96	88.56	-5.97	90.19	90.39	93
$O=R_d$ orange red (red)	47.94	65.38	50.51	82.62	37	50.78	64.52	51.26	82.4	38
$L=G_d$ leaf green (green)	50.9	-62.83	34.95	71.89	150	49.24	-62.06	35.27	71.38	150
$V=B_d$ violet blue (blue)	25.72	30.99	-44.41	54.16	304	28.18	28.97	-43.27	52.08	303
W white	95.41	0.0	0.0	0.0	0	94.5	0.0	0.0	0.0	0
N black	18.01	0.0	0.0	0.0	0	19.14	0.0	0.0	0.0	0

Source: Kittelmann (2005), Diploma work, TU Berlin

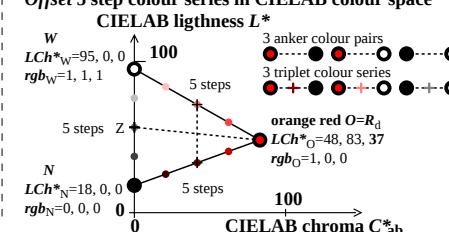
1-000030-L0

XE141-1

rgb_d input and LCh^*_{da} output of Offset colours

Device colour	rgb_d	LCh^*_{d0}
$C=C_d$ cyan blue (cyan)	0 1 1	59, 54, 236
$V=B_d$ violet blue (blue)	0 0 1	26, 54, 304
$M=M_d$ magenta red (magenta)	1 0 1	48, 76, 353
$O=R_d$ orange red (red)	1 0 0	48, 83, 37
$Y=Y_d$ yellow	1 1 0	90, 92, 96
$L=G_d$ leaf green (green)	0 1 0	51, 72, 150
N black	0 0 0	95, 0, 0
W white	1 1 1	18, 0, 0

Offset 5 step colour series in CIELAB colour space

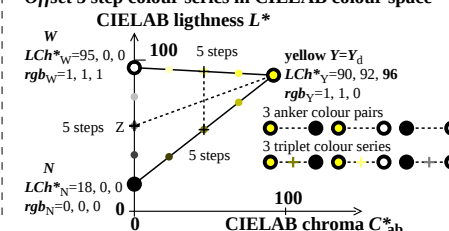


XE141-3N

rgb_d input and LCh^*_{da} output of Offset colours

Device colour	rgb_d	LCh^*_{d0}
$C=C_d$ cyan blue (cyan)	0 1 1	59, 54, 236
$V=B_d$ violet blue (blue)	0 0 1	26, 54, 304
$M=M_d$ magenta red (magenta)	1 0 1	48, 76, 353
$O=R_d$ orange red (red)	1 0 0	48, 83, 37
$Y=Y_d$ yellow	1 1 0	90, 92, 96
$L=G_d$ leaf green (green)	0 1 0	51, 72, 150
N black	0 0 0	95, 0, 0
W white	1 1 1	18, 0, 0

Offset 5 step colour series in CIELAB colour space

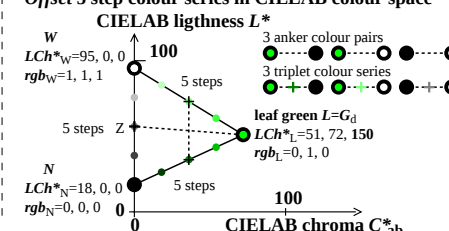


XE141-5N

rgb_d input and LCh^*_{da} output of Offset colours

Device colour	rgb_d	LCh^*_{d0}
$C=C_d$ cyan blue (cyan)	0 1 1	59, 54, 236
$V=B_d$ violet blue (blue)	0 0 1	26, 54, 304
$M=M_d$ magenta red (magenta)	1 0 1	48, 76, 353
$O=R_d$ orange red (red)	1 0 0	48, 83, 37
$Y=Y_d$ yellow	1 1 0	90, 92, 96
$L=G_d$ leaf green (green)	0 1 0	51, 72, 150
N black	0 0 0	95, 0, 0
W white	1 1 1	18, 0, 0

Offset 5 step colour series in CIELAB colour space



XE141-7N

TUB-test chart XE14; Offset colour series

rgb_d input and LCh^*_{da} device colour output in CIELAB colour space

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