see similar files: http://farbe.li.tu-berlin.de/XE20/XE20.HTM
technical information: http://www.ps.bam.de or http://farbe.li.tu-berlin.de

TUB registration: 20130201-XE20/XE20L0NP.PDF /.PS
application for measurement of display output

TUB material: code=rha4ta

Relative and scaled visual differences; triplets and pairs; 6 step interval scaling

relative visual scale $\Delta V_{3,i}$ (i=0,1) range 0 to 1

pair comparison *(P)* to grey - turquoise $\Delta P^*_i : \Delta V^*_R=10$

relative visual scale $\Delta V_{6,i}$ (i=0,4) ranges B−Z and Z−Y

scaled visual data $\Delta V^*_i=\Delta V_{6,i}\cdot\Delta P^*_i$(i=0,4)

0 a_i 1

B Y

0 0,40 1

$\Delta V_{3,i}$ 0,40 0,60

0,28=4,2/15,0=ΔP^*_0 / ΔS^*

0,72=10,8/15,0=ΔP^*_1 / ΔS^*

(pair comparison, $\Delta S^* = \Delta P^*_0+\Delta P^*_1$)

wiewing situation

B=0 *Y=10*

0 ... 10 colour step B...Z...Y

ΔP^*_0=4,2

B Z

ΔV^*_0=6,0=0,4·15,0 =$\Delta V_{3,0}\cdot\Delta S^*$

ΔS^*=15,0 =4,2+10,8

ΔP^*_1=10,8

Z Y

ΔV^*_1=9,0=0,6·15,0 =$\Delta V_{3,1}\cdot\Delta S^*$

ΔV^*_R=10,0

Z T

reference pair

B	bluish	Z	$\Delta V_{6,i}$	ΔP^*_i	ΔV^*_i	ΔV^*_{ri}
0	1	5				0,84
			0,20	4,2	0.84	
0	2	5				0,84
			0,40	4,2	1.68	
0	3	5				0,84
			0,60	4,2	2.52	
0	4	5				0,84
			0,80	4,2	3.36	
						0,84
						2,16
Z	yellowish	Y				
5	6	10	0,20	10,8	2.16	
						2,16
5	7	10	0,40	10,8	4.32	
						2,16
5	8	10	0,60	10,8	6.48	
						2,16
5	9	10	0,80	10,8	8.64	
						2,16

relative triplet scaling — pair comparison — slider to adjust the sample — final scaled data

1−000030−L0 XE200−7N

Anchor (A) and 6 step (S) series of BAM−1985 pair comparison and interval scaling experiments

A−Serie 1			A−Serie 2			S−Serie 1			S−Serie 2		
L^*_l	L^*_r	ΔV^*_A	L^*_l	L^*_r	ΔV^*_A			ΔV^*_S			ΔV^*_S
48 B	48 Z	4,2	10 N1	48 Z	16,7	B a b c d Z		0,84	N1 a b c d Z		3,34
48 Z	49 Y	10,8	48 Z	60 W1	5,0	Z a b c d Y		2,40	Z a b c d W1		1,00
46 R	47 Z	20,0	11 N2	51 Z	22,5	R a b c d Z		4,00	N2 a b c d Z		4,41
47 Z	49 C	8,2	51 Z	66 W2	6,2	Z a b c d C		1,64	Z a b c d W2		1,24
48 G	47 Z	14,3	28 N3	51 Z	6,0	G a b c d Z		2,86	N3 a b c d Z		1,20
47 Z	43 M	11,3	51 Z	125 W3	14,0	Z a b c d M		2,26	Z a b c d W3		2,80
44 T	47 Z	10,0	29 BN	31 D	11,5	T a b c d Z		2,00	BN a b c d D		2,30
47 Z	47 P	22,2	31 D	30 YN	7,5	Z a b c d P		4,44	D a b c d YN		1,50

Reference pair T Z ΔV^*_R=10 (ΔE^*_{ab}=69)

$\Delta V^*_S = 0,2\ \Delta V^*_A$ for 6 visual equal steps with slider adjustment by 6 observers

1−000030−L0 XE200−7N

TUB-test chart XE20; relative and scaled differences
colour triplets and colour pairs; blue - yellow series

input: *w/rgb/cmyk −> w/rgb/cmyk*