Equal 9 step grey scaling between L^*_{0aN}=17.9 and L^*_{0aW}=95.9, Y_{0ref}=3.6, normalisation white *W*

L^*_{0aN}=17.9, L^*_{0aU}=56.9, L^*_{0aW}=96.0, Y_{0aN}=2.5, Y_{0aU}=24.9, Y_{0aW}=90.0, C_{0aY}=Y_{0aW}:Y_{0aN}=36.0
L^*_{taN}=29.1, L^*_{taU}=59.3, L^*_{taW}=96.0, Y_{taN}=5.9, Y_{taU}=27.4, Y_{taW}=90.0, C_{taY}=Y_{taW}:Y_{taN}=15.3

Regularity index according to ISO/IEC 15775:2022, annex G for 5 and 9 steps
g^* = 100 [ΔL^*_{min}] / [ΔL^*_{max}], L^*_{CIELAB} = 116 [Y/Y_n]$^{1/3}$ − 16 with Y >= 0,882, Y_n=100

L^*_{CIELAB}		g^*_5= 99, g^*_9= 99				g^*_5= 72, g^*_9= 65					g^*_5= 97, g^*_9= 96	
		intended output				real output					linearized output	
	n0. i	L*0a	L*0r	Y0a	Y0r	L*ta	ΔL*ta	L*tr	Yta	(L*tr)$^{1/1.15}$	L*la	ΔL*la
100	9	96.0	1.0	90.0	1.0	96.0		1.0	90.0	1.0	96.0	
							9.3					8.2
	8	86.2	0.875	68.5	0.754	86.6		0.86	69.3	0.877	87.8	
							9.2					8.3
75	7	76.5	0.75	50.7	0.55	77.4		0.722	52.2	0.753	79.4	
							9.1					8.4
	6	66.7	0.625	36.3	0.386	68.3		0.585	38.3	0.627	71.0	
							8.9					8.5
	5	56.9	0.5	24.9	0.256	59.3		0.452	27.4	0.5	62.6	
50							8.6					8.5
	4	47.2	0.375	16.2	0.156	50.7		0.323	19.0	0.373	54.1	
							8.1					8.4
	3	37.4	0.25	9.8	0.083	42.6		0.201	12.9	0.247	45.6	
							7.4					8.2
25	2	27.7	0.125	5.3	0.032	35.2		0.091	8.6	0.124	37.4	
							6.1					8.3
0	1	17.9	0.0	2.5	0.0	29.1		0.0	5.9	0.0	29.1	

ΔL^*_{0a}=9.7 (i=1,2,...,8)

normalisation: Y_{taiW}=Y_{0aW} $\frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$

eep80−3N

Equal 9 step grey scaling between L^*_{0aN}=17.9 and L^*_{0aW}=95.9, Y_{0ref}=0.9, normalisation white *W*

L^*_{0aN}=17.9, L^*_{0aU}=56.9, L^*_{0aW}=96.0, Y_{0aN}=2.5, Y_{0aU}=24.9, Y_{0aW}=90.0, C_{0aY}=Y_{0aW}:Y_{0aN}=36.0
L^*_{taN}=21.5, L^*_{taU}=57.6, L^*_{taW}=96.0, Y_{taN}=3.4, Y_{taU}=25.5, Y_{taW}=90.0, C_{taY}=Y_{taW}:Y_{taN}=26.7

Regularity index according to ISO/IEC 15775:2022, annex G for 5 and 9 steps
g^* = 100 [ΔL^*_{min}] / [ΔL^*_{max}], L^*_{CIELAB} = 116 [Y/Y_n]$^{1/3}$ − 16 with Y >= 0,882, Y_n=100

L^*_{CIELAB}		g^*_5= 99, g^*_9= 99				g^*_5= 90, g^*_9= 87					g^*_5= 98, g^*_9= 98	
		intended output				real output					linearized output	
	n0. i	L*0a	L*0r	Y0a	Y0r	L*ta	ΔL*ta	L*tr	Yta	(L*tr)$^{1/1.05}$	L*la	ΔL*la
100	9	96.0	1.0	90.0	1.0	96.0		1.0	90.0	1.0	96.0	
							9.6					9.2
	8	86.2	0.875	68.5	0.754	86.3		0.87	68.7	0.876	86.7	
							9.6					9.3
75	7	76.5	0.75	50.7	0.55	76.7		0.741	51.0	0.751	77.4	
							9.6					9.3
	6	66.7	0.625	36.3	0.386	67.1		0.613	36.8	0.626	68.1	
							9.5					9.4
	5	56.9	0.5	24.9	0.256	57.6		0.485	25.5	0.5	58.8	
50							9.4					9.4
	4	47.2	0.375	16.2	0.156	48.1		0.358	16.9	0.375	49.4	
							9.3					9.4
	3	37.4	0.25	9.8	0.083	38.8		0.233	10.6	0.249	40.0	
							9.0					9.3
25	2	27.7	0.125	5.3	0.032	29.9		0.113	6.2	0.124	30.7	
							8.4					9.2
0	1	17.9	0.0	2.5	0.0	21.5		0.0	3.4	0.0	21.5	

ΔL^*_{0a}=9.7 (i=1,2,...,8)

normalisation: Y_{taiW}=Y_{0aW} $\frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$

eep81−3N

Equal 9 step grey scaling between L^*_{0aN}=17.9 and L^*_{0aW}=95.9, Y_{0ref}=0.4, normalisation white *W*

L^*_{0aN}=17.9, L^*_{0aU}=56.9, L^*_{0aW}=96.0, Y_{0aN}=2.5, Y_{0aU}=24.9, Y_{0aW}=90.0, C_{0aY}=Y_{0aW}:Y_{0aN}=36.0
L^*_{taN}=19.6, L^*_{taU}=57.2, L^*_{taW}=96.0, Y_{taN}=2.9, Y_{taU}=25.2, Y_{taW}=90.0, C_{taY}=Y_{taW}:Y_{taN}=31.2

Regularity index according to ISO/IEC 15775:2022, annex G for 5 and 9 steps
g^* = 100 [ΔL^*_{min}] / [ΔL^*_{max}], L^*_{CIELAB} = 116 [Y/Y_n]$^{1/3}$ − 16 with Y >= 0,882, Y_n=100

L^*_{CIELAB}		g^*_5= 99, g^*_9= 99				g^*_5= 95, g^*_9= 93					g^*_5= 99, g^*_9= 98	
		intended output				real output					linearized output	
	n0. i	L*0a	L*0r	Y0a	Y0r	L*ta	ΔL*ta	L*tr	Yta	(L*tr)$^{1/1.02}$	L*la	ΔL*la
100	9	96.0	1.0	90.0	1.0	96.0		1.0	90.0	1.0	96.0	
							9.7					9.5
	8	86.2	0.875	68.5	0.754	86.3		0.873	68.5	0.875	86.5	
							9.7					9.5
75	7	76.5	0.75	50.7	0.55	76.6		0.746	50.8	0.75	76.9	
							9.7					9.6
	6	66.7	0.625	36.3	0.386	66.9		0.619	36.5	0.625	67.4	
							9.6					9.6
	5	56.9	0.5	24.9	0.256	57.2		0.493	25.2	0.5	57.8	
50							9.6					9.6
	4	47.2	0.375	16.2	0.156	47.6		0.367	16.5	0.374	48.2	
							9.5					9.6
	3	37.4	0.25	9.8	0.083	38.1		0.242	10.1	0.249	38.6	
							9.4					9.5
25	2	27.7	0.125	5.3	0.032	28.7		0.119	5.7	0.124	29.1	
							9.1					9.5
0	1	17.9	0.0	2.5	0.0	19.6		0.0	2.9	0.0	19.6	

ΔL^*_{0a}=9.7 (i=1,2,...,8)

normalisation: Y_{taiW}=Y_{0aW} $\frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$

eep80−7N

Equal 9 step grey scaling between L^*_{0aN}=17.9 and L^*_{0aW}=95.9, Y_{0ref}=1.8, normalisation white *W*

L^*_{0aN}=17.9, L^*_{0aU}=56.9, L^*_{0aW}=96.0, Y_{0aN}=2.5, Y_{0aU}=24.9, Y_{0aW}=90.0, C_{0aY}=Y_{0aW}:Y_{0aN}=36.0
L^*_{taN}=24.4, L^*_{taU}=58.2, L^*_{taW}=96.0, Y_{taN}=4.2, Y_{taU}=26.1, Y_{taW}=90.0, C_{taY}=Y_{taW}:Y_{taN}=21.3

Regularity index according to ISO/IEC 15775:2022, annex G for 5 and 9 steps
g^* = 100 [ΔL^*_{min}] / [ΔL^*_{max}], L^*_{CIELAB} = 116 [Y/Y_n]$^{1/3}$ − 16 with Y >= 0,882, Y_n=100

L^*_{CIELAB}		g^*_5= 99, g^*_9= 99				g^*_5= 82, g^*_9= 77					g^*_5= 98, g^*_9= 97	
		intended output				real output					linearized output	
	n0. i	L*0a	L*0r	Y0a	Y0r	L*ta	ΔL*ta	L*tr	Yta	(L*tr)$^{1/1.08}$	L*la	ΔL*la
100	9	96.0	1.0	90.0	1.0	96.0		1.0	90.0	1.0	96.0	
							9.5					8.8
	8	86.2	0.875	68.5	0.754	86.4		0.867	68.9	0.876	87.1	
							9.5					8.9
75	7	76.5	0.75	50.7	0.55	76.9		0.734	51.4	0.752	78.2	
							9.4					9.0
	6	66.7	0.625	36.3	0.386	67.5		0.602	37.3	0.626	69.2	
							9.3					9.0
	5	56.9	0.5	24.9	0.256	58.2		0.472	26.1	0.5	60.2	
50							9.1					9.0
	4	47.2	0.375	16.2	0.156	49.0		0.344	17.6	0.374	51.2	
							8.9					9.0
	3	37.4	0.25	9.8	0.083	40.2		0.22	11.3	0.248	42.1	
							8.3					8.9
25	2	27.7	0.125	5.3	0.032	31.8		0.104	7.0	0.124	33.2	
							7.4					8.8
0	1	17.9	0.0	2.5	0.0	24.4		0.0	4.2	0.0	24.4	

ΔL^*_{0a}=9.7 (i=1,2,...,8)

normalisation: Y_{taiW}=Y_{0aW} $\frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$

eep81−7N

Test chart eep8; Equal 9 step grey scaling for four display reflections Y_{ref}= 3,6, 0,4, 0,9, 1,8, and black $L^*_{N,CIELAB}$=17.92, Y_N=2.5 and white $L^*_{W,CIELAB}$=95.99, Y_W=90, normalisation: white *W*