Equal 9 step grey scaling between L^*_{0aN}=14.4 and L^*_{0aW}=95.9, Y_{0ref}=3.6, normalisation grey *U*

L^*_{0aN}=14.4, L^*_{0aU}=55.2, L^*_{0aW}=96.0, Y_{0aN}=1.8, Y_{0aU}=23.1, Y_{0aW}=90.0, C_{0aY}=Y_{0aW}:Y_{0aN}=50.0
L^*_{taN}=25.8, L^*_{taU}=55.2, L^*_{taW}=92.1, Y_{taN}=4.7, Y_{taU}=23.1, Y_{taW}=81.0, C_{taY}=Y_{taW}:Y_{taN}=17.3

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= 67, g^*_9= 59					g^*_5= 96, g^*_9= 95	
		intended output				real output					linearized output	
n0.	i	L*0a	L*0r	Y0a	Y0r	L*ta	ΔL*ta	L*tr	Yta	(L*tr)$^{1/1.18}$	L*la	ΔL*la
○	9	96.0	1.0	90.0	1.0	92.1		1.0	81.0	1.0	92.1	
	8	85.8	0.875	67.6	0.746	82.7	9.4	0.858	61.6	0.878	84.0	8.1
	7	75.6	0.75	49.2	0.538	73.4	9.3	0.717	45.7	0.754	75.8	8.2
	6	65.4	0.625	34.5	0.371	64.2	9.2	0.579	33.0	0.628	67.4	8.3
	5	55.2	0.5	23.1	0.242	55.2	9.0	0.443	23.1	0.501	59.0	8.4
	4	45.0	0.375	14.5	0.144	46.6	8.6	0.313	15.7	0.373	50.5	8.5
	3	34.8	0.25	8.4	0.075	38.5	8.0	0.192	10.4	0.246	42.1	8.4
	2	24.6	0.125	4.3	0.028	31.4	7.1	0.085	6.8	0.123	33.9	8.2
●	1	14.4	0.0	1.8	0.0	25.8	5.6	0.0	4.7	0.0	25.8	8.1

120 / 90 / 60 / 30 / 0

ΔL^*_{0a}=10.2 (i=1,2,...,8)

normalisation: Y_{taiU}=Y_{0aU} $\frac{Y_{0ai}+Y_{0ref}}{Y_{0aU}+Y_{0ref}}$

eep70−3n

Equal 9 step grey scaling between L^*_{0aN}=14.4 and L^*_{0aW}=95.9, Y_{0ref}=0.9, normalisation grey *U*

L^*_{0aN}=14.4, L^*_{0aU}=55.2, L^*_{0aW}=96.0, Y_{0aN}=1.8, Y_{0aU}=23.1, Y_{0aW}=90.0, C_{0aY}=Y_{0aW}:Y_{0aN}=50.0
L^*_{taN}=18.4, L^*_{taU}=55.2, L^*_{taW}=94.9, Y_{taN}=2.6, Y_{taU}=23.1, Y_{taW}=87.5, C_{taY}=Y_{taW}:Y_{taN}=33.6

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= 87, g^*_9= 83					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)$^{1/1.06}$	L*la	ΔL*la
○	9	96.0	1.0	90.0	1.0	94.9		1.0	87.5	1.0	94.9	
	8	85.8	0.875	67.6	0.746	84.9	10.0	0.869	65.9	0.876	85.5	9.5
	7	75.6	0.75	49.2	0.538	75.0	10.0	0.739	48.2	0.751	75.9	9.5
	6	65.4	0.625	34.5	0.371	65.1	9.9	0.61	34.1	0.626	66.3	9.6
	5	55.2	0.5	23.1	0.242	55.2	9.9	0.481	23.1	0.5	56.7	9.6
	4	45.0	0.375	14.5	0.144	45.4	9.7	0.354	14.9	0.374	47.0	9.7
	3	34.8	0.25	8.4	0.075	35.9	9.5	0.229	8.9	0.248	37.3	9.7
	2	24.6	0.125	4.3	0.028	26.7	9.2	0.109	5.0	0.123	27.8	9.6
●	1	14.4	0.0	1.8	0.0	18.4	8.3	0.0	2.6	0.0	18.4	9.4

120 / 90 / 60 / 30 / 0

ΔL^*_{0a}=10.2 (i=1,2,...,8)

normalisation: Y_{taiU}=Y_{0aU} $\frac{Y_{0ai}+Y_{0ref}}{Y_{0aU}+Y_{0ref}}$

eep71−3n

Equal 9 step grey scaling between L^*_{0aN}=14.4 and L^*_{0aW}=95.9, Y_{0ref}=0.4, normalisation grey *U*

L^*_{0aN}=14.4, L^*_{0aU}=55.2, L^*_{0aW}=96.0, Y_{0aN}=1.8, Y_{0aU}=23.1, Y_{0aW}=90.0, C_{0aY}=Y_{0aW}:Y_{0aN}=50.0
L^*_{taN}=16.3, L^*_{taU}=55.2, L^*_{taW}=95.5, Y_{taN}=2.2, Y_{taU}=23.1, Y_{taW}=88.9, C_{taY}=Y_{taW}:Y_{taN}=41.1

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= 93, g^*_9= 91					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)$^{1/1.03}$	L*la	ΔL*la
○	9	96.0	1.0	90.0	1.0	95.5		1.0	88.9	1.0	95.5	
	8	85.8	0.875	67.6	0.746	85.4	10.1	0.872	66.8	0.875	85.6	9.9
	7	75.6	0.75	49.2	0.538	75.3	10.1	0.745	48.8	0.75	75.8	9.9
	6	65.4	0.625	34.5	0.371	65.2	10.1	0.618	34.3	0.625	65.8	9.9
	5	55.2	0.5	23.1	0.242	55.2	10.0	0.491	23.1	0.5	55.9	9.9
	4	45.0	0.375	14.5	0.144	45.2	10.0	0.365	14.7	0.374	46.0	9.9
	3	34.8	0.25	8.4	0.075	35.3	9.9	0.24	8.6	0.248	36.0	9.9
	2	24.6	0.125	4.3	0.028	25.6	9.7	0.117	4.6	0.124	26.1	9.9
●	1	14.4	0.0	1.8	0.0	16.3	9.3	0.0	2.2	0.0	16.3	9.8

120 / 90 / 60 / 30 / 0

ΔL^*_{0a}=10.2 (i=1,2,...,8)

normalisation: Y_{taiU}=Y_{0aU} $\frac{Y_{0ai}+Y_{0ref}}{Y_{0aU}+Y_{0ref}}$

eep70−7n

Equal 9 step grey scaling between L^*_{0aN}=14.4 and L^*_{0aW}=95.9, Y_{0ref}=1.8, normalisation grey *U*

L^*_{0aN}=14.4, L^*_{0aU}=55.2, L^*_{0aW}=96.0, Y_{0aN}=1.8, Y_{0aU}=23.1, Y_{0aW}=90.0, C_{0aY}=Y_{0aW}:Y_{0aN}=50.0
L^*_{taN}=21.4, L^*_{taU}=55.2, L^*_{taW}=93.9, Y_{taN}=3.3, Y_{taU}=23.1, Y_{taW}=85.2, C_{taY}=Y_{taW}:Y_{taN}=25.5

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= 79, g^*_9= 72					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)$^{1/1.1}$	L*la	ΔL*la
○	9	96.0	1.0	90.0	1.0	93.9		1.0	85.2	1.0	93.9	
	8	85.8	0.875	67.6	0.746	84.2	9.8	0.865	64.4	0.877	85.0	8.9
	7	75.6	0.75	49.2	0.538	74.4	9.7	0.731	47.3	0.753	76.0	9.0
	6	65.4	0.625	34.5	0.371	64.7	9.7	0.598	33.7	0.627	66.9	9.1
	5	55.2	0.5	23.1	0.242	55.2	9.5	0.466	23.1	0.501	57.7	9.2
	4	45.0	0.375	14.5	0.144	45.9	9.3	0.337	15.2	0.374	48.5	9.2
	3	34.8	0.25	8.4	0.075	36.9	9.0	0.213	9.5	0.247	39.3	9.2
	2	24.6	0.125	4.3	0.028	28.5	8.3	0.098	5.6	0.122	30.3	9.0
●	1	14.4	0.0	1.8	0.0	21.4	7.1	0.0	3.3	0.0	21.4	8.9

120 / 90 / 60 / 30 / 0

ΔL^*_{0a}=10.2 (i=1,2,...,8)

normalisation: Y_{taiU}=Y_{0aU} $\frac{Y_{0ai}+Y_{0ref}}{Y_{0aU}+Y_{0ref}}$

eep71−7n

Test chart eep7; Equal 9 step grey scaling for four display reflections Y_{ref}= 3,6, 0,4, 0,9, 1,8, and black $L^*_{N,CIELAB}$=14.4, Y_N=1.8 and white $L^*_{W,CIELAB}$=95.99, Y_W=90, normalisation: grey *U*