Equal 9 step grey scaling between L^*_{0aN}=22.3 and L^*_{0aW}=95.9, Y_{0ref}=2.5, normalisation white *W*

L^*_{0aN}=22.3, L^*_{0aU}=59.1, L^*_{0aW}=96.0, Y_{0aN}=3.6, Y_{0aU}=27.2, Y_{0aW}=90.0, C_{0aY}=Y_{0aW}:Y_{0aN}=25.0
L^*_{taN}=29.2, L^*_{taU}=60.7, L^*_{taW}=96.0, Y_{taN}=5.9, Y_{taU}=28.9, Y_{taW}=90.0, C_{taY}=Y_{taW}:Y_{taN}=15.2

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}		intended output				real output					linearized output	
		g^*_5= 99, g^*_9= 99				g^*_5= 82, g^*_9= 77					g^*_5= 98, g^*_9= 98	
	n0. i	L*0a	L*0r	Y0a	Y0r	L*ta	ΔL*ta	L*tr	Yta	(L*tr)$^{1/1.09}$	L*la	ΔL*la
100	9	96.0	1.0	90.0	1.0	96.0		1.0	90.0	1.0	96.0	
							8.9					8.3
	8	86.8	0.875	69.6	0.763	87.0		0.866	70.1	0.876	87.7	
							8.9					8.3
75	7	77.6	0.75	52.5	0.566	78.2		0.733	53.5	0.751	79.4	
							8.8					8.4
	6	68.4	0.625	38.5	0.403	69.4		0.601	39.8	0.626	71.0	
							8.7					8.4
	5	59.1	0.5	27.2	0.273	60.7		0.471	28.9	0.5	62.6	
50							8.5					8.4
	4	49.9	0.375	18.4	0.171	52.2		0.343	20.3	0.374	54.2	
							8.2					8.4
	3	40.7	0.25	11.7	0.094	44.0		0.22	13.8	0.248	45.8	
							7.7					8.2
	2	31.5	0.125	6.9	0.038	36.2		0.104	9.1	0.125	37.6	
25							7.0					8.3
	1	22.3	0.0	3.6	0.0	29.2		0.0	5.9	0.0	29.2	
0												

ΔL^*_{0a}=9.2 **(i=1,2,...,8)** **normalisation: Y_{taiW}=Y_{0aW} $\frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$**

eeq00−3n

Equal 9 step grey scaling between L^*_{0aN}=22.3 and L^*_{0aW}=95.9, Y_{0ref}=20.0, normalisation white *W*

L^*_{0aN}=22.3, L^*_{0aU}=59.1, L^*_{0aW}=96.0, Y_{0aN}=3.6, Y_{0aU}=27.2, Y_{0aW}=90.0, C_{0aY}=Y_{0aW}:Y_{0aN}=25.0
L^*_{taN}=51.0, L^*_{taU}=68.5, L^*_{taW}=96.0, Y_{taN}=19.3, Y_{taU}=38.6, Y_{taW}=90.0, C_{taY}=Y_{taW}:Y_{taN}=4.7

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}		intended output				real output					linearized output	
		g^*_5= 99, g^*_9= 99				g^*_5= 47, g^*_9= 40					g^*_5= 96, g^*_9= 87	
	n0. i	L*0a	L*0r	Y0a	Y0r	L*ta	ΔL*ta	L*tr	Yta	(L*tr)$^{1/1.35}$	L*la	ΔL*la
100	9	96.0	1.0	90.0	1.0	96.0		1.0	90.0	1.0	96.0	
							7.4					5.6
	8	86.8	0.875	69.6	0.763	88.6		0.835	73.3	0.875	90.4	
							7.1					5.7
75	7	77.6	0.75	52.5	0.566	81.5		0.677	59.3	0.749	84.7	
							6.7					5.7
	6	68.4	0.625	38.5	0.403	74.7		0.527	47.8	0.622	79.0	
							6.2					5.7
	5	59.1	0.5	27.2	0.273	68.5		0.387	38.6	0.496	73.3	
50							5.6					5.6
	4	49.9	0.375	18.4	0.171	62.8		0.262	31.4	0.372	67.8	
							4.9					5.4
	3	40.7	0.25	11.7	0.094	58.0		0.154	25.9	0.251	62.3	
							3.9					5.2
	2	31.5	0.125	6.9	0.038	54.0		0.066	22.0	0.134	57.1	
25							3.0					6.0
	1	22.3	0.0	3.6	0.0	51.0		0.0	19.3	0.0	51.0	
0												

ΔL^*_{0a}=9.2 **(i=1,2,...,8)** **normalisation: Y_{taiW}=Y_{0aW} $\frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$**

eeq01−3n

Equal 9 step grey scaling between L^*_{0aN}=22.3 and L^*_{0aW}=95.9, Y_{0ref}=10.0, normalisation white *W*

L^*_{0aN}=22.3, L^*_{0aU}=59.1, L^*_{0aW}=96.0, Y_{0aN}=3.6, Y_{0aU}=27.2, Y_{0aW}=90.0, C_{0aY}=Y_{0aW}:Y_{0aN}=25.0
L^*_{taN}=41.6, L^*_{taU}=64.5, L^*_{taW}=96.0, Y_{taN}=12.2, Y_{taU}=33.5, Y_{taW}=90.0, C_{taY}=Y_{taW}:Y_{taN}=7.3

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}		intended output				real output					linearized output	
		g^*_5= 99, g^*_9= 99				g^*_5= 59, g^*_9= 52					g^*_5= 98, g^*_9= 93	
	n0. i	L*0a	L*0r	Y0a	Y0r	L*ta	ΔL*ta	L*tr	Yta	(L*tr)$^{1/1.24}$	L*la	ΔL*la
100	9	96.0	1.0	90.0	1.0	96.0		1.0	90.0	1.0	96.0	
							8.2					6.7
	8	86.8	0.875	69.6	0.763	87.8		0.849	71.6	0.876	89.3	
							8.0					6.8
75	7	77.6	0.75	52.5	0.566	79.7		0.701	56.2	0.751	82.4	
							7.8					6.9
	6	68.4	0.625	38.5	0.403	72.0		0.558	43.6	0.625	75.6	
							7.4					6.9
	5	59.1	0.5	27.2	0.273	64.5		0.422	33.5	0.498	68.7	
50							6.9					6.8
	4	49.9	0.375	18.4	0.171	57.6		0.294	25.5	0.372	61.8	
							6.3					6.7
	3	40.7	0.25	11.7	0.094	51.3		0.178	19.5	0.249	55.1	
							5.4					6.5
	2	31.5	0.125	6.9	0.038	45.9		0.079	15.2	0.129	48.6	
25							4.3					7.0
	1	22.3	0.0	3.6	0.0	41.6		0.0	12.2	0.0	41.6	
0												

ΔL^*_{0a}=9.2 **(i=1,2,...,8)** **normalisation: Y_{taiW}=Y_{0aW} $\frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$**

eeq00−7n

Equal 9 step grey scaling between L^*_{0aN}=22.3 and L^*_{0aW}=95.9, Y_{0ref}=90.0, normalisation white *W*

L^*_{0aN}=22.3, L^*_{0aU}=59.1, L^*_{0aW}=96.0, Y_{0aN}=3.6, Y_{0aU}=27.2, Y_{0aW}=90.0, C_{0aY}=Y_{0aW}:Y_{0aN}=25.0
L^*_{taN}=74.1, L^*_{taU}=81.1, L^*_{taW}=96.0, Y_{taN}=46.8, Y_{taU}=58.6, Y_{taW}=90.0, C_{taY}=Y_{taW}:Y_{taN}=1.9

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}		intended output				real output					linearized output	
		g^*_5= 99, g^*_9= 99				g^*_5= 30, g^*_9= 23					g^*_5= 88, g^*_9= 74	
	n0. i	L*0a	L*0r	Y0a	Y0r	L*ta	ΔL*ta	L*tr	Yta	(L*tr)$^{1/1.6}$	L*la	ΔL*la
100	9	96.0	1.0	90.0	1.0	96.0		1.0	90.0	1.0	96.0	
							4.4					2.9
	8	86.8	0.875	69.6	0.763	91.6		0.799	79.8	0.869	93.1	
							4.0					2.8
75	7	77.6	0.75	52.5	0.566	87.6		0.617	71.2	0.74	90.3	
							3.5					2.8
	6	68.4	0.625	38.5	0.403	84.1		0.457	64.2	0.613	87.5	
							3.0					2.7
	5	59.1	0.5	27.2	0.273	81.1		0.319	58.6	0.491	84.8	
50							2.5					2.6
	4	49.9	0.375	18.4	0.171	78.6		0.205	54.2	0.372	82.2	
							2.0					2.5
	3	40.7	0.25	11.7	0.094	76.6		0.115	50.8	0.259	79.7	
							1.5					2.4
	2	31.5	0.125	6.9	0.038	75.1		0.047	48.4	0.149	77.3	
25							1.0					3.3
	1	22.3	0.0	3.6	0.0	74.1		0.0	46.8	0.0	74.1	
0												

ΔL^*_{0a}=9.2 **(i=1,2,...,8)** **normalisation: Y_{taiW}=Y_{0aW} $\frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$**

eeq01−7n

Test chart eeq0; Equal 9 step grey scaling for four display reflections Y_{ref}= 2,5, 10, 20, 90, and black $L^*_{N,CIELAB}$=22.3, Y_N=3.6 and white $L^*_{W,CIELAB}$=95.99, Y_W=90, normalisation: white *W*