

Colorimetric Report

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CCalc 2.5
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Date	Friday, May 5, 2023
Tester	Simon Blohm
Display	Samsung S27B800PXU
Sensor	X-Rite i1 Display Pro (Corr.: WLED, XR)
Testchart	In accordance with ISO 12646:2007 (1)
Target	sRGB
Display Profile	Considered
Rendering Intent	Relative colorimetric

(1) Five equally spaced code values for each channel

White Point (CCT)	6503 Kelvin
White Point XYZ (normalized)	95.15 100.00 109.08
DeltaE to D50/ D65	19.62/ 0.22
Assumed Target Whitepoint (2)	6500 Kelvin
DeltaE to Assumed Target Whitepoint	0.30
Brightness	138.45 cd/m ²
Black Point	0.14 cd/m ²
Contrast (x:1)	989:1
Gradation (Average)	2.17

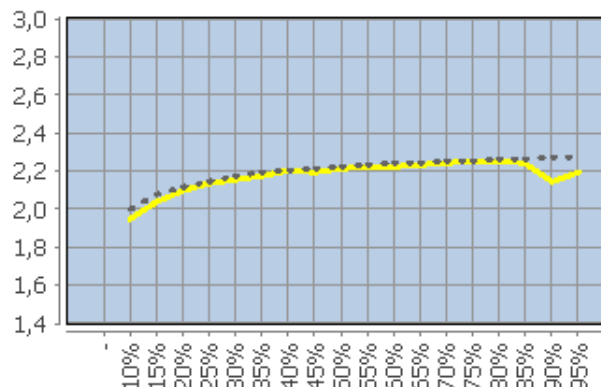
(2) Daylight

	Percent	Kelvin	Delta C	Delta E	Gamma
	5	-	-	-	-
	10	6475	0.91	1.34	1.95
	15	6445	0.45	0.73	2.04
	20	6331	0.59	0.77	2.09
	25	6346	0.66	0.78	2.13
	30	6373	0.48	0.64	2.15
	35	6458	0.30	0.41	2.17
	40	6492	0.46	0.47	2.20
	45	6511	0.71	0.82	2.19
	50	6454	0.25	0.31	2.21
	55	6544	0.37	0.45	2.22
	60	6490	0.13	0.28	2.22
	65	6493	0.24	0.29	2.23
	70	6544	0.37	0.39	2.24
	75	6510	0.43	0.44	2.25
	80	6488	0.31	0.33	2.25
	85	6504	0.26	0.30	2.24
	90	6546	1.19	1.28	2.14
	95	6504	0.14	0.21	2.19
	100 (3)	6502	-	-	-
	Average (4)	-	0.46	0.57	2.17
	Maximum (4)	-	1.19	1.34	-
	Range (4)	-	1.64	-	-

(3) Visual adaptation to display whitepoint is assumed

(4) Only luminance > 1% considered

Corresponding Gamma



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(1) Five equally spaced code values for each channel

	RGB	Delta C	Delta H	Delta L	Delta E94
	0 0 0	0.93	0.00	0.89	1.28
	0 0 63	1.51	0.04	0.41	0.65
	0 0 127	1.16	0.29	0.34	0.44
	0 0 191	0.45	0.21	0.54	0.55
	0 0 255	0.95	0.62	0.44	0.51
	0 63 0	0.36	0.13	0.07	0.16
	0 63 63	0.26	0.13	0.31	0.35
	0 63 127	0.48	0.37	0.19	0.34
	0 63 191	0.98	0.50	0.31	0.44
	0 63 255	0.77	0.26	0.20	0.25
	0 127 0	2.43	0.08	0.55	0.80
	0 127 63	2.18	0.02	0.41	0.77
	0 127 127	0.66	0.20	0.06	0.32
	0 127 191	0.17	0.24	0.05	0.17
	0 127 255	0.10	0.55	0.07	0.27
	0 191 0	1.23	0.22	0.30	0.39
	0 191 63	1.35	0.10	0.24	0.38
	0 191 127	1.73	0.01	0.13	0.49
	0 191 191	1.08	0.65	0.10	0.57
	0 191 255	0.74	0.01	0.16	0.29
	0 255 0	0.65	0.27	0.52	0.54
	0 255 63	0.14	0.10	0.52	0.52
	0 255 127	0.35	0.14	0.55	0.56
	0 255 191	0.03	0.21	0.53	0.54
	0 255 255	0.02	1.40	0.40	0.89
	63 0 0	0.00	2.97	0.37	2.02
	63 0 63	0.67	0.26	0.33	0.44
	63 0 127	0.35	0.21	0.31	0.34
	63 0 191	0.17	0.74	0.32	0.43
	63 0 255	0.72	0.64	0.21	0.32
	63 63 0	1.14	0.17	0.13	0.47
	63 63 63	0.34	0.04	0.39	0.52
	63 63 127	0.47	0.10	0.29	0.34
	63 63 191	0.97	0.33	0.33	0.42
	63 63 255	0.72	0.23	0.33	0.36
	63 127 0	0.97	0.56	0.26	0.46
	63 127 63	0.97	0.48	0.14	0.45
	63 127 127	0.83	0.48	0.03	0.56
	63 127 191	0.06	0.92	0.04	0.58
	63 127 255	0.57	0.10	0.22	0.26
	63 191 0	1.27	0.91	0.32	0.55
	63 191 63	1.75	0.63	0.28	0.56
	63 191 127	1.16	0.20	0.08	0.36
	63 191 191	0.91	0.28	0.09	0.41
	63 191 255	0.77	0.33	0.09	0.34
	63 255 0	0.00	0.27	0.48	0.49
	63 255 63	0.40	0.13	0.50	0.51

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Target	sRGB
Display Profile	Considered
Rendering Intent	Relative colorimetric

(1) Five equally spaced code values for each channel

	RGB	Delta C	Delta H	Delta L	Delta E94
	63 255 127	0.55	0.08	0.51	0.52
	63 255 191	0.44	0.32	0.47	0.51
	63 255 255	0.04	1.27	0.70	1.02
	127 0 0	0.32	0.82	0.17	0.47
	127 0 63	0.70	0.61	0.17	0.44
	127 0 127	0.50	0.08	0.15	0.20
	127 0 191	0.89	0.03	0.30	0.35
	127 0 255	0.64	0.12	0.23	0.26
	127 63 0	1.21	2.10	0.02	1.25
	127 63 63	1.04	0.96	0.21	0.82
	127 63 127	1.29	0.72	0.52	0.80
	127 63 191	1.46	0.45	0.36	0.53
	127 63 255	1.03	0.11	0.26	0.32
	127 127 0	0.42	0.06	0.07	0.14
	127 127 63	0.21	0.22	0.00	0.16
	127 127 127	0.16	0.02	0.09	0.18
	127 127 191	0.24	0.41	0.12	0.30
	127 127 255	1.16	0.10	0.38	0.47
	127 191 0	0.26	0.46	0.00	0.21
	127 191 63	0.55	0.37	0.06	0.23
	127 191 127	0.51	0.45	0.10	0.34
	127 191 191	0.61	0.04	0.14	0.34
	127 191 255	0.82	0.31	0.12	0.38
	127 255 0	0.71	0.15	0.52	0.54
	127 255 63	0.11	0.57	0.53	0.58
	127 255 127	0.40	0.62	0.54	0.62
	127 255 191	0.37	0.18	0.50	0.52
	127 255 255	0.40	0.92	0.48	0.78
	191 0 0	0.12	0.75	0.13	0.36
	191 0 63	0.45	0.33	0.01	0.20
	191 0 127	0.46	0.43	0.11	0.26
	191 0 191	0.43	0.37	0.19	0.26
	191 0 255	0.66	0.16	0.09	0.15
	191 63 0	1.22	0.37	0.08	0.34
	191 63 63	0.44	0.33	0.01	0.21
	191 63 127	1.08	0.29	0.37	0.51
	191 63 191	0.77	0.18	0.27	0.33
	191 63 255	1.10	0.15	0.34	0.40
	191 127 0	0.34	0.13	0.06	0.12
	191 127 63	0.81	0.49	0.03	0.38
	191 127 127	0.04	0.12	0.08	0.11
	191 127 191	0.76	0.21	0.36	0.46
	191 127 255	0.61	0.02	0.39	0.42
	191 191 0	0.01	0.03	0.01	0.02
	191 191 63	0.30	0.00	0.02	0.08
	191 191 127	0.48	0.16	0.05	0.22
	191 191 191	0.41	0.08	0.09	0.43

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Testchart	In accordance with ISO 12646:2007 (1)
Target	sRGB
Display Profile	Considered
Rendering Intent	Relative colorimetric

(1) Five equally spaced code values for each channel

	RGB	Delta C	Delta H	Delta L	Delta E94
	191 191 255	0.87	0.25	0.05	0.39
	191 255 0	0.03	0.12	0.37	0.37
	191 255 63	0.39	0.17	0.39	0.40
	191 255 127	0.92	0.38	0.39	0.49
	191 255 191	0.64	0.09	0.69	0.73
	191 255 255	0.42	1.57	0.59	1.35
	255 0 0	1.48	0.38	0.19	0.35
	255 0 63	0.81	0.13	0.17	0.24
	255 0 127	1.09	0.37	0.05	0.28
	255 0 191	0.46	0.77	0.08	0.34
	255 0 255	0.74	0.33	0.01	0.17
	255 63 0	1.07	0.77	0.06	0.37
	255 63 63	1.44	0.22	0.01	0.32
	255 63 127	0.72	0.37	0.20	0.31
	255 63 191	1.08	0.10	0.34	0.41
	255 63 255	1.59	0.01	0.33	0.43
	255 127 0	0.26	0.53	0.15	0.28
	255 127 63	0.22	0.41	0.21	0.29
	255 127 127	1.08	0.47	0.48	0.63
	255 127 191	1.07	0.18	0.46	0.55
	255 127 255	1.32	0.10	0.43	0.52
	255 191 0	0.22	0.06	0.17	0.18
	255 191 63	0.68	0.07	0.19	0.25
	255 191 127	0.68	0.19	0.22	0.34
	255 191 191	0.14	0.38	0.22	0.37
	255 191 255	0.72	0.45	0.17	0.42
	255 255 0	0.78	0.35	0.12	0.24
	255 255 63	1.54	0.48	0.12	0.40
	255 255 127	1.73	0.40	0.11	0.51
	255 255 191	1.07	0.20	0.07	0.46
	255 255 255 (1)	-	-	-	-
	Average (2)	0.72	0.00	0.25	0.43
	Maximum (2)	2.43	2.97	0.89	2.02

(1) Visual adaptation to display whitepoint is assumed; CIELAB reference values are adapted (Bradford transformation) to display whitepoint
(2) Without Black

Color Space	Gamut Volume CIELAB D50
sRGB	100%

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Sensor	X-Rite i1 Display Pro (Corr.: WLED, XR)
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Target	sRGB
Display Profile	Considered
Rendering Intent	Relative colorimetric

(1) Five equally spaced code values for each channel

Property	Device adjustments
Backlight brightness	
Brightness	26
Contrast	75
RGB Gain	48 50 49
Gradation	Gamma Modus1
Other	Dyn. Helligkeit und Öko-Sensor Modus aus