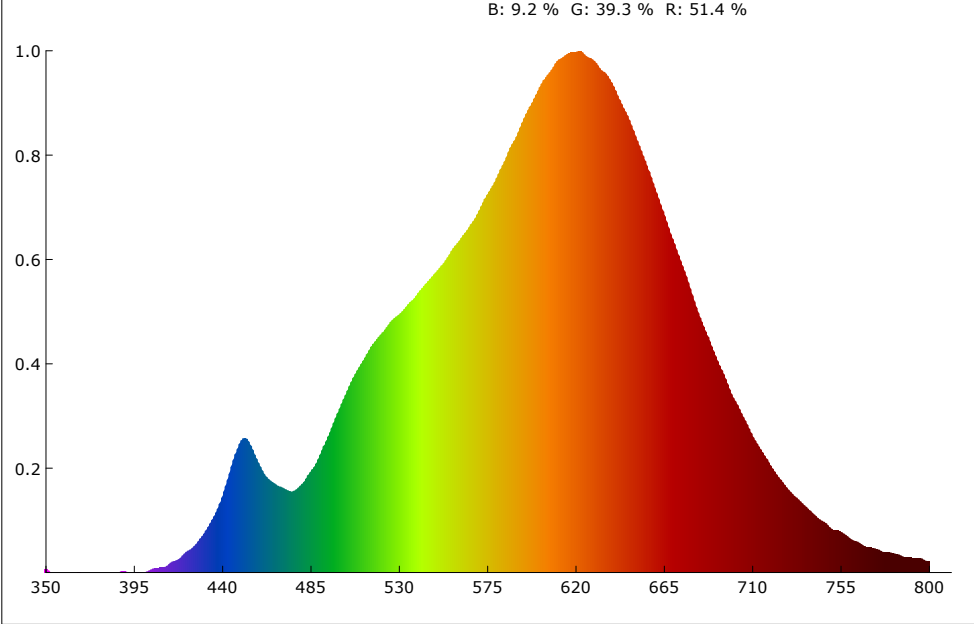
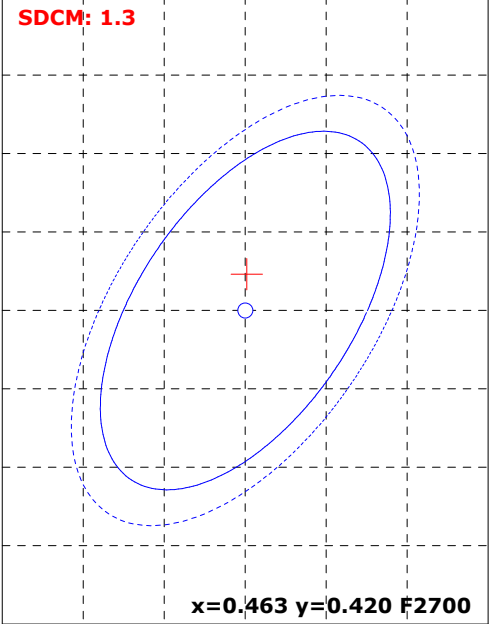


Spectrogram



SDCM



Color Parameter:

x: 0.4651 y: 0.4223 u: 0.2607 v: 0.3550 u': 0.2607 v': 0.5325
R_ratio: 51.4 % G_ratio: 39.3 % B_ratio: 9.2 % RedRatio: 25.1 % GreenRatio: 73.7 % BlueRatio: 1.3 %

Ra: 91.3 AvgR: 87.9
R1: 90.6 R2: 94.0 R3: 97.4 R4: 92.8 R5: 90.7 R6: 94.5 R7: 92.2 R8: 78.8
R9: 51.4 R10: 86.2 R11: 94.0 R12: 82.4 R13: 91.1 R14: 97.7 R15: 85.1

CCT: 2716 K Flux: 1194.851 lm PeakWave: 621.6 nm SDCM: 1.3
S/P: 1.2 CentralWave: 606.9 nm DominantWave: 583.0 nm CentroidWave: 602.3 nm
HalfWidth: 149.5 nm duv: 0.00380 purity: 66.4 % CQS: 89.4
LER(TM-30): 287.2 Ep: 4159.6 mw Rg: 96.7 Rf: 91.9
Red Ep: 1984.2 mw Near red Ep: 284.9 mw Near infrared Ep: 16.4 mw

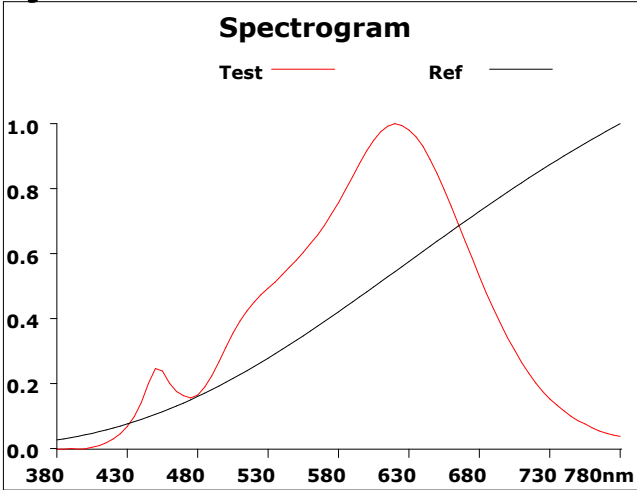
Electrical parameters:

Effic: 28.8 Lm/W Energy: 31.4 Effi: G
U: 220.8 V I: 0.325 A P: 41.500 W Pf: 0.578

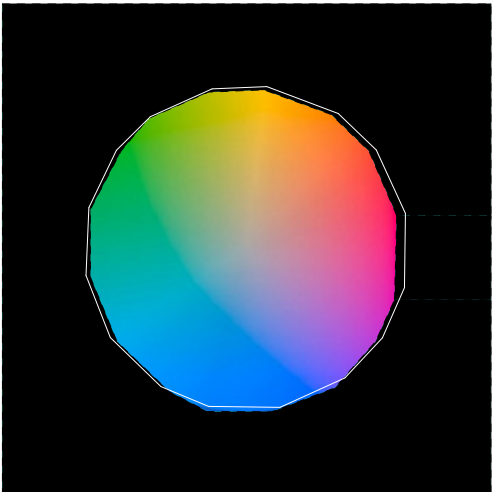
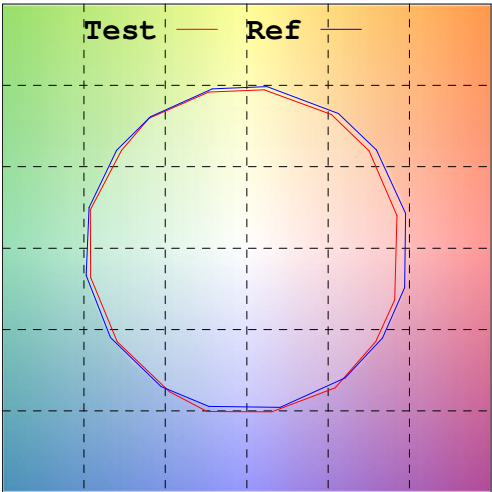
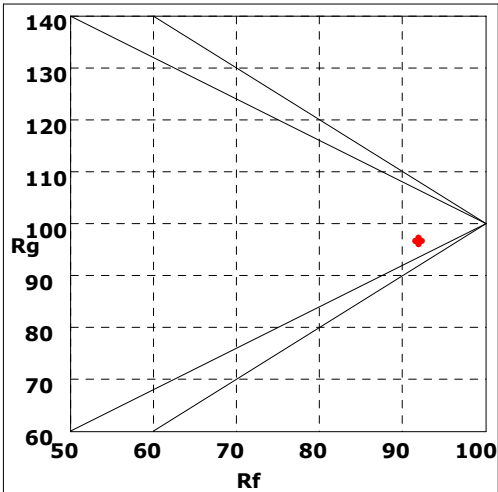
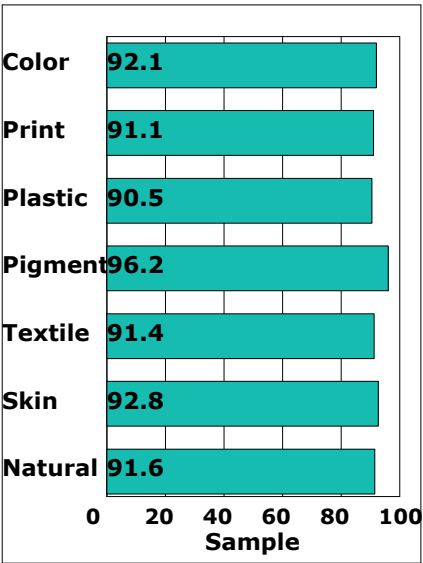
Product model:
Product number:
Tester:
Remarks:

Manufacturer:
Test unit:
Date of observation: 10/12/23

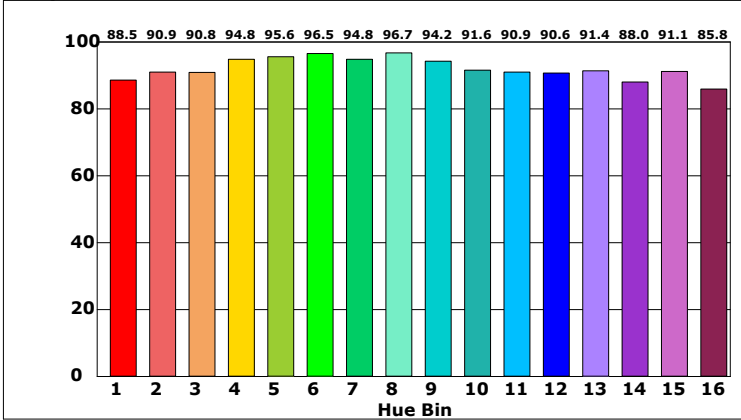
Rf: 91.9 CCT: 2716K u': 0.2607
Rg: 96.7 LER: 287.2 Duv: 0.00380 v': 0.5325



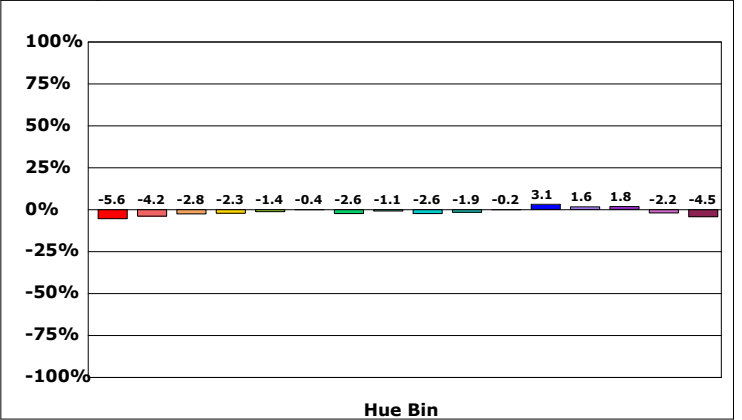
500			
Hue Bin	Rf	Chroma	Hue
1	88.5	-5.6%	-0.3%
2	90.9	-4.2%	1.9%
3	90.8	-2.8%	3.3%
4	94.8	-2.3%	1.4%
5	95.6	-1.4%	2.6%
6	96.5	-0.4%	1.5%
7	94.8	-2.6%	-1.5%
8	96.7	-1.1%	1.2%
9	94.2	-2.6%	1.6%
10	91.6	-1.9%	4.4%
11	90.9	-0.2%	5.9%
12	90.6	3.1%	-0.3%
13	91.4	1.6%	-5.6%
14	88.0	1.8%	-8.6%
15	91.1	-2.2%	-4.1%
16	85.8	-4.5%	-8.5%



Rf by Bue

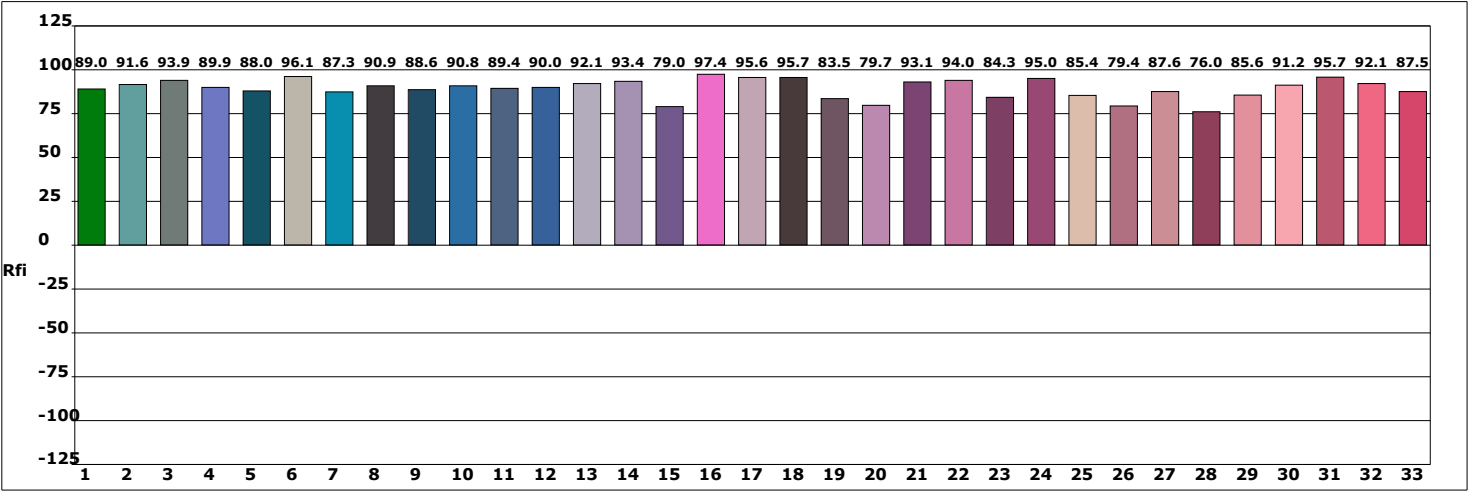
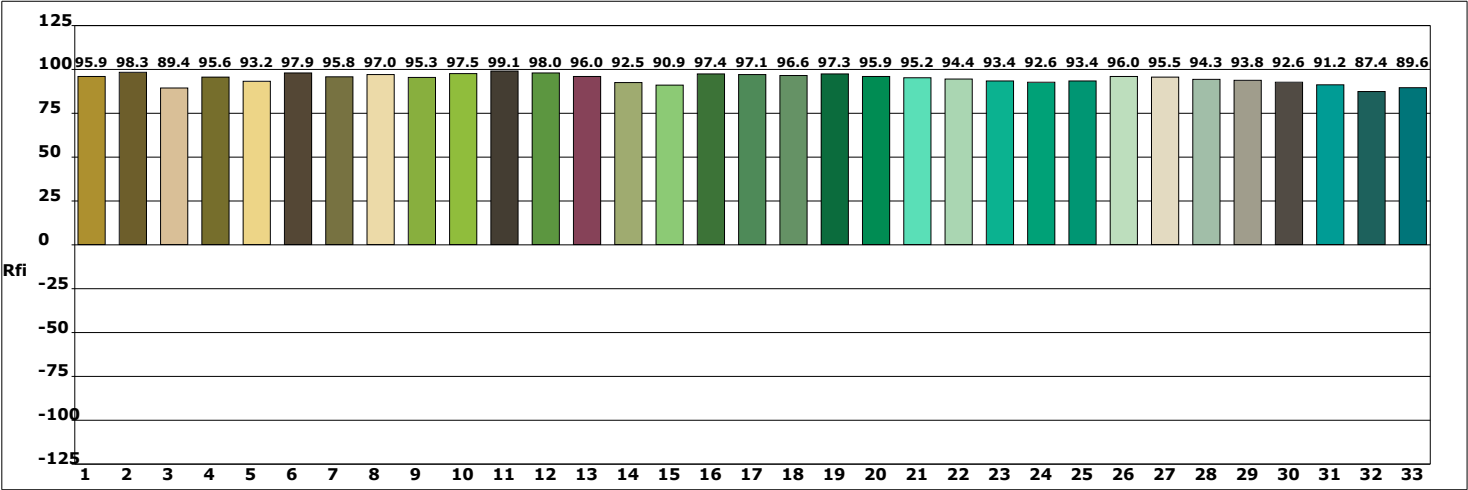
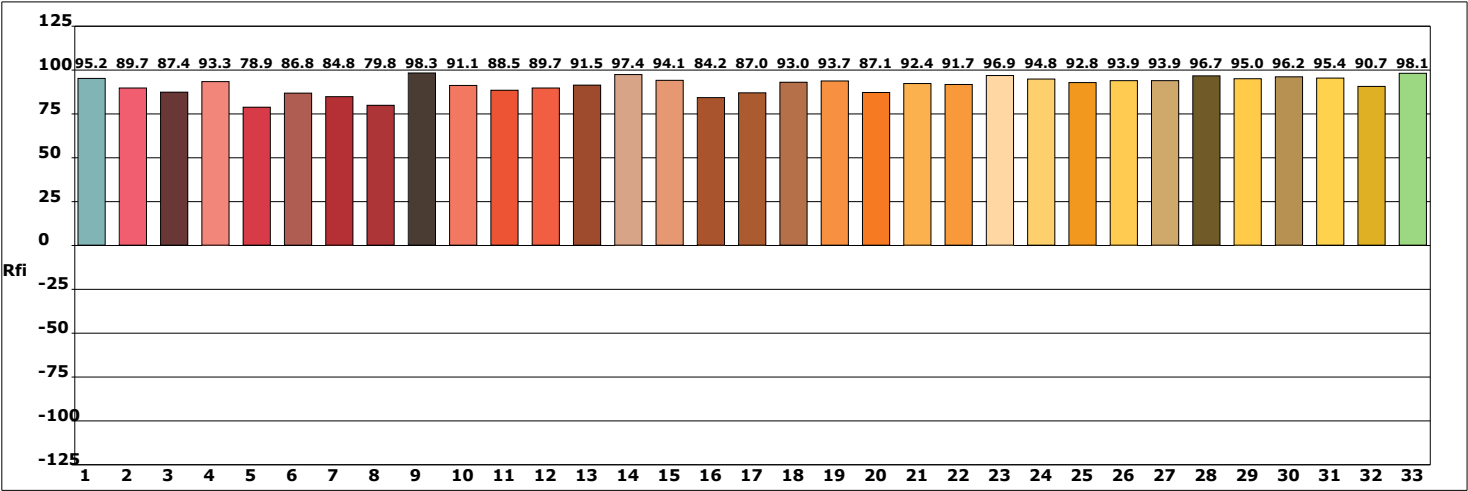


Chroma by Bue



Product model:
Product number:
Tester:
Remarks:

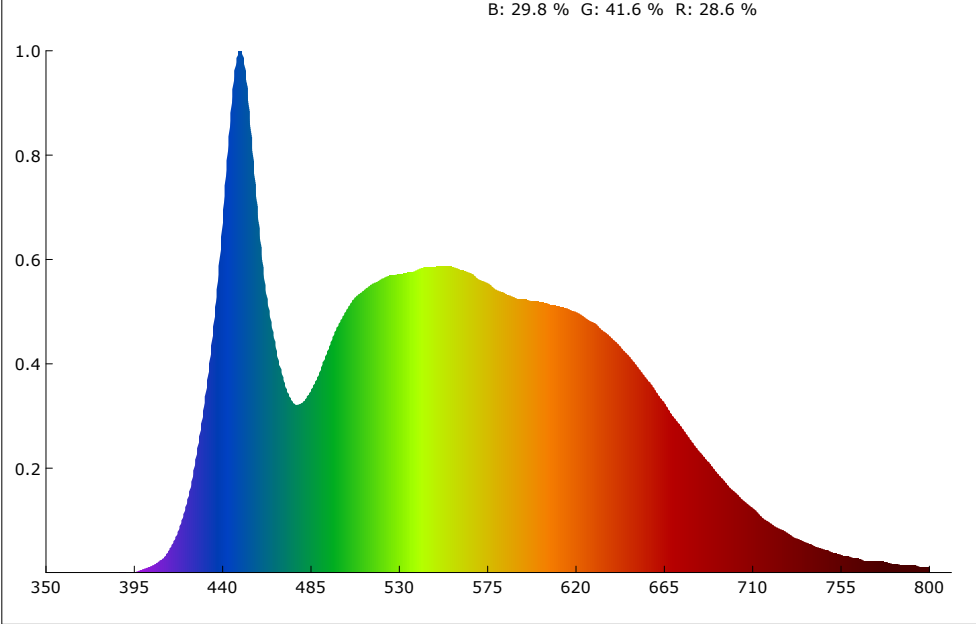
Manufacturer:
Test unit:
Date of observation: 10/12/23



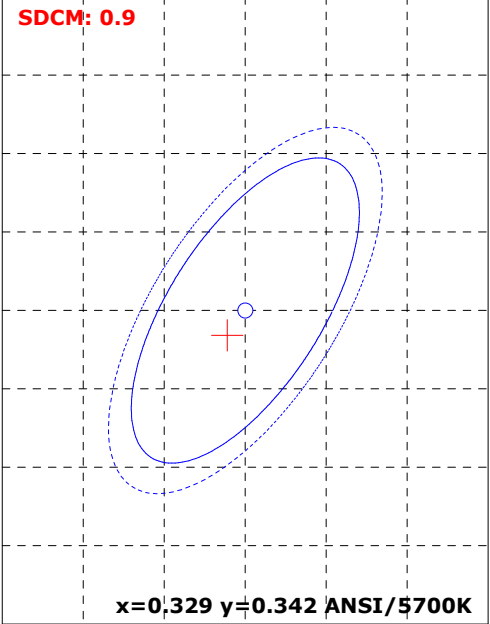
Product model:
Product number:
Tester:
Remarks:

Manufacturer:
Test unit:
Date of observation: 10/12/23

Spectrogram



SDCM



Color Parameter:

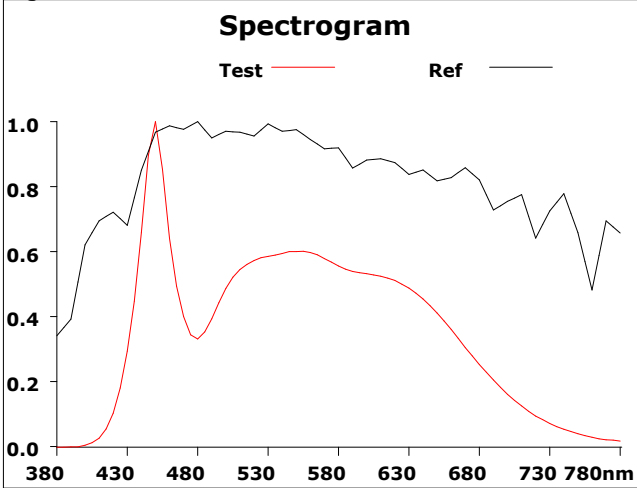
x: 0.3276	y: 0.3401	u: 0.2039	v: 0.3176	u': 0.2039	v': 0.4764		
R_ratio: 28.6 %	G_ratio: 41.6 %	B_ratio: 29.8 %	RedRatio: 15.2 %	GreenRatio: 81.1 %	BlueRatio: 3.7 %		
Ra: 91.4	AvgR: 88.3						
R1: 92.2	R2: 92.4	R3: 91.3	R4: 92.3	R5: 91.9	R6: 88.6	R7: 93.5	R8: 89.0
R9: 66.6	R10: 81.4	R11: 92.4	R12: 74.7	R13: 92.1	R14: 95.1	R15: 91.4	
CCT: 5716 K		Flux: 1353.674 lm	PeakWave: 449.6 nm	SDCM: 0.9			
S/P: 2.2		CentralWave: 450.2 nm	DominantWave: 508.3 nm	CentroidWave: 555.6 nm			
HalfWidth: 26.9 nm		duv: 0.00174	purity: 1.8 %	CQS: 89.3			
LER(TM-30): 283.1		Ep: 4781.4 mw	Rg: 100.5	Rf: 89.4			
Red Ep: 1313.5 mw		Near red Ep: 178.0 mw	Near infrared Ep: 10.2 mw				

Electrical parameters:

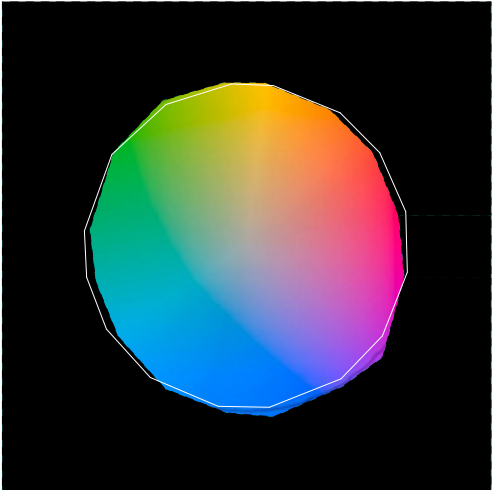
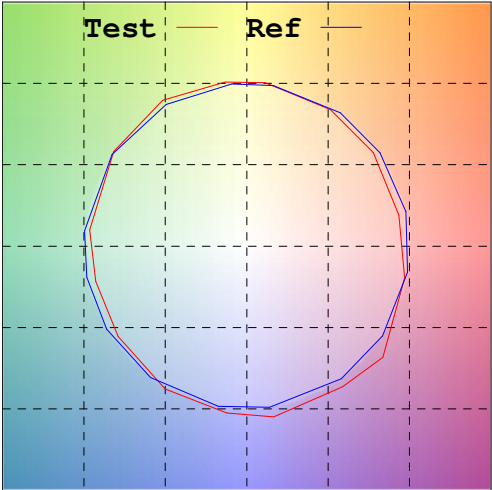
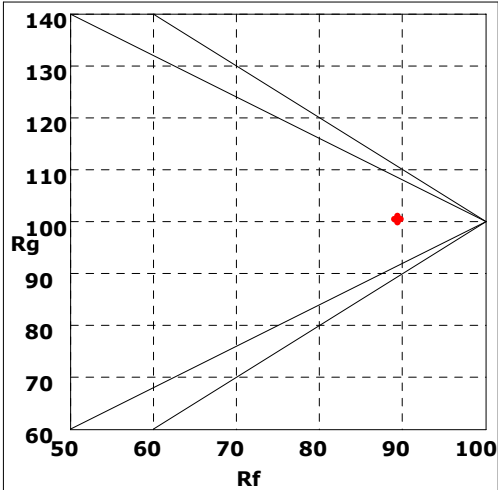
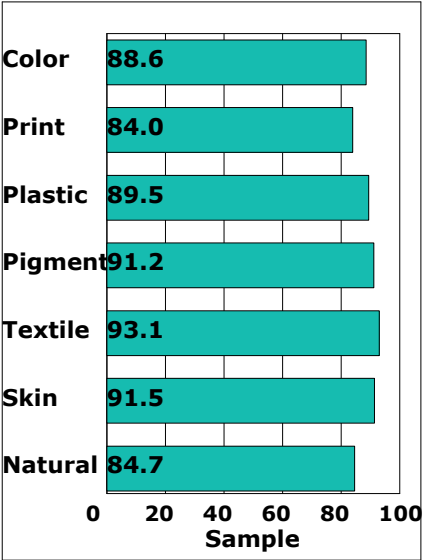
Effic: 35.6 Lm/W	Energy: 38.8	Effi: G	
U: 220.7 V	I: 0.302 A	P: 38.010 W	Pf: 0.570

Product model:	Manufacturer:
Product number:	Test unit:
Tester:	Date of observation: 10/12/23
Remarks:	

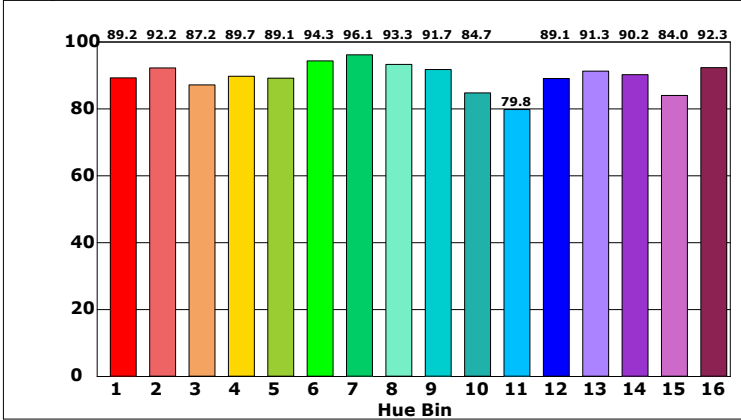
Rf: 89.4 CCT: 5716K u': 0.2039
Rg: 100.5 LER: 283.1 Duv: 0.00174 v': 0.4764



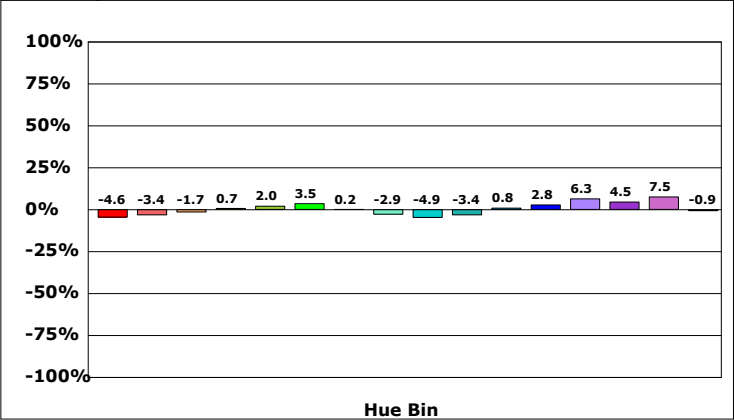
500			
Hue Bin	Rf	Chroma	Hue
1	89.2	-4.6%	-1.3%
2	92.2	-3.4%	2.5%
3	87.2	-1.7%	6.2%
4	89.7	0.7%	5.5%
5	89.1	2.0%	3.7%
6	94.3	3.5%	0.4%
7	96.1	0.2%	-2.0%
8	93.3	-2.9%	-1.3%
9	91.7	-4.9%	3.6%
10	84.7	-3.4%	7.7%
11	79.8	0.8%	11.3%
12	89.1	2.8%	5.9%
13	91.3	6.3%	1.4%
14	90.2	4.5%	-2.1%
15	84.0	7.5%	-10.9%
16	92.3	-0.9%	-4.0%



Rf by Bue

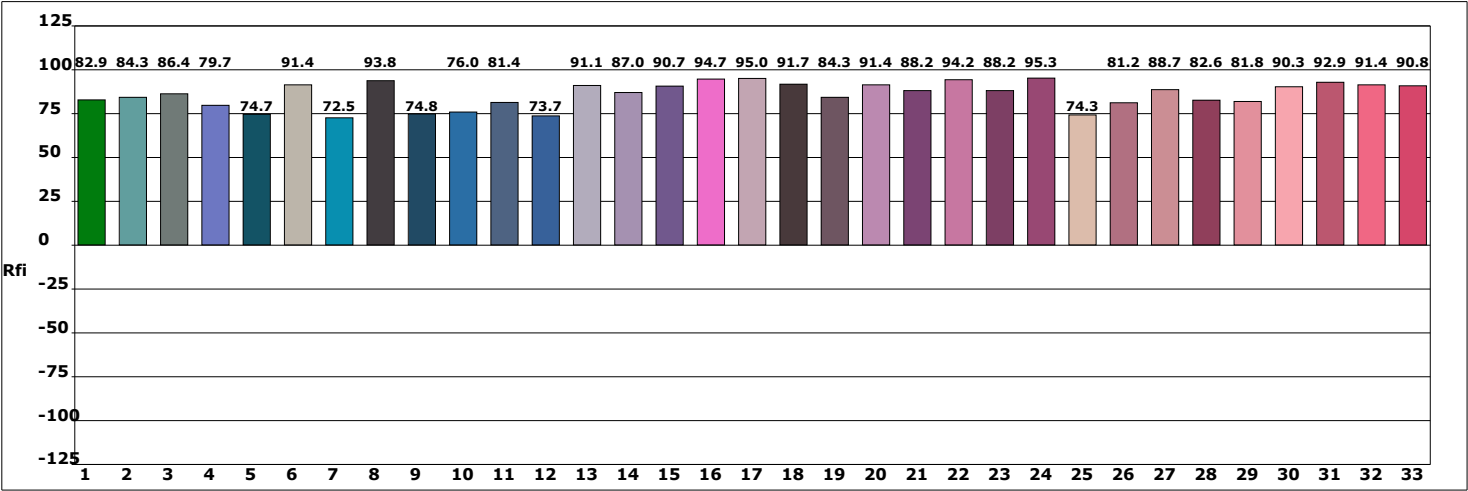
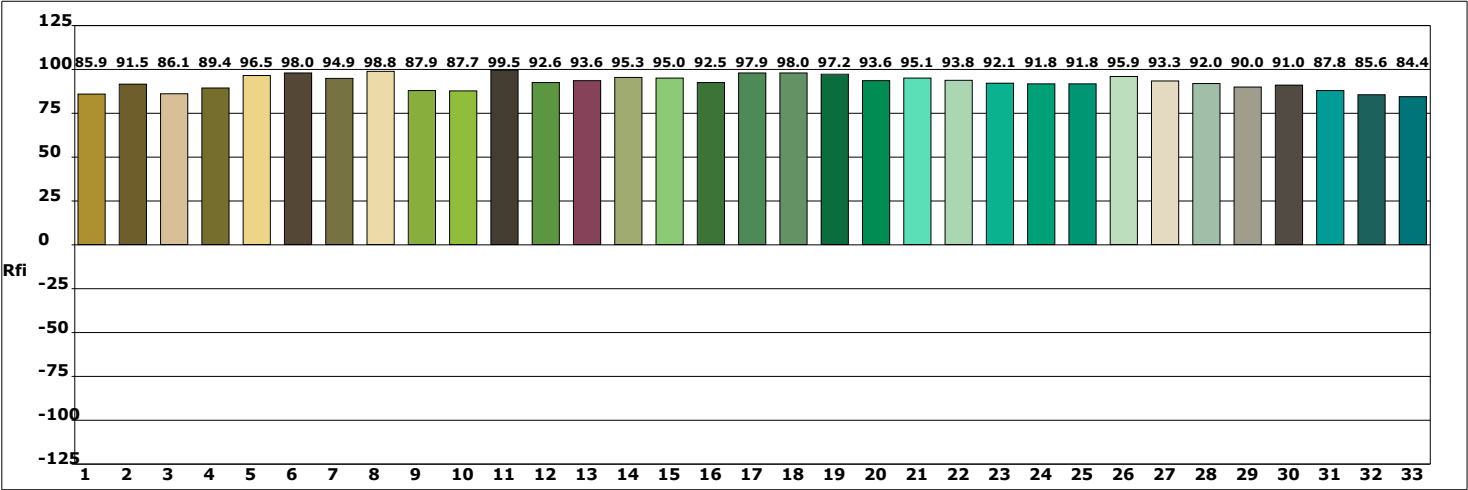
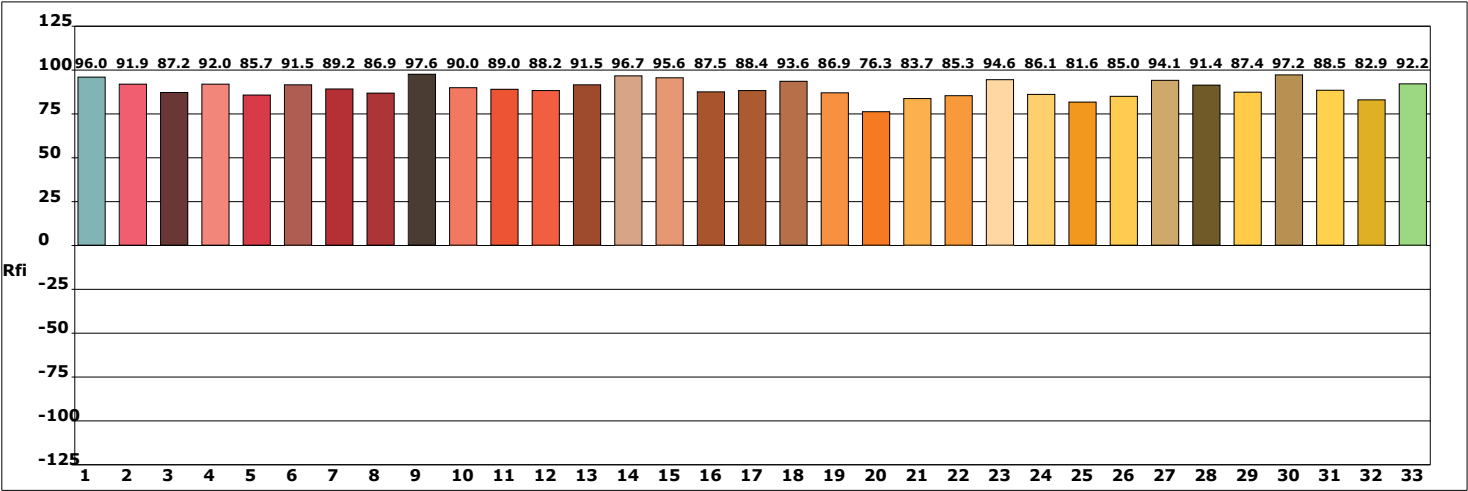


Chroma by Bue



Product model:
Product number:
Tester:
Remarks:

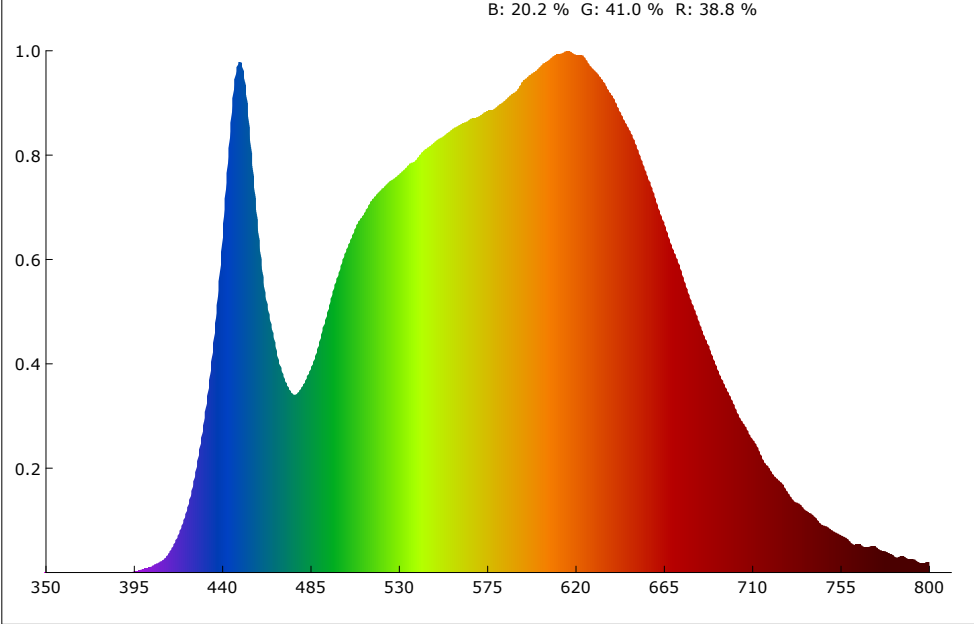
Manufacturer:
Test unit:
Date of observation: 10/12/23



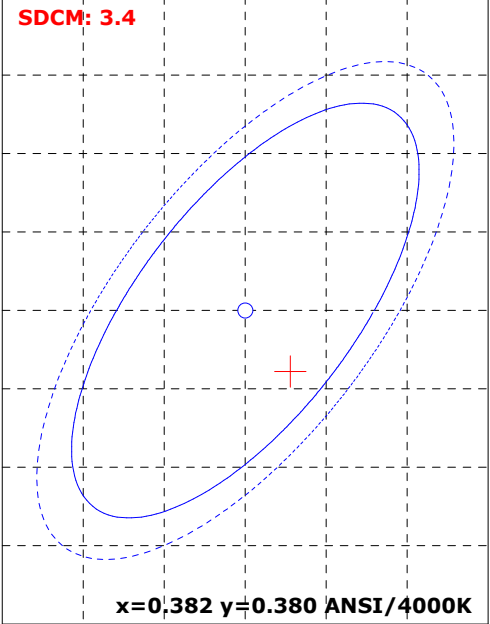
Product model:
Product number:
Tester:
Remarks:

Manufacturer:
Test unit:
Date of observation: 10/12/23

Spectrogram



SDCM



Color Parameter:

x: 0.3846 y: 0.3758 u: 0.2282 v: 0.3345 u': 0.2282 v': 0.5017
R_ratio: 38.8 % G_ratio: 41.0 % B_ratio: 20.2 % RedRatio: 19.6 % GreenRatio: 77.9 % BlueRatio: 2.5 %

Ra: 93.4 AvgR: 90.8
R1: 94.3 R2: 94.9 R3: 94.1 R4: 94.1 R5: 94.0 R6: 92.9 R7: 94.6 R8: 88.4
R9: 69.9 R10: 87.3 R11: 94.2 R12: 79.6 R13: 94.3 R14: 96.3 R15: 92.5

CCT: 3882 K Flux: 1248.296 lm PeakWave: 616.6 nm SDCM: 3.4
S/P: 1.7 CentralWave: 587.1 nm DominantWave: 580.4 nm CentroidWave: 577.2 nm
HalfWidth: 186.5 nm duv: -0.00164 purity: 28.2 % CQS: 87.4
LER(TM-30): 287.1 Ep: 4347.4 mw Rg: 101.3 Rf: 91.0
Red Ep: 1597.6 mw Near red Ep: 221.6 mw Near infrared Ep: 11.7 mw

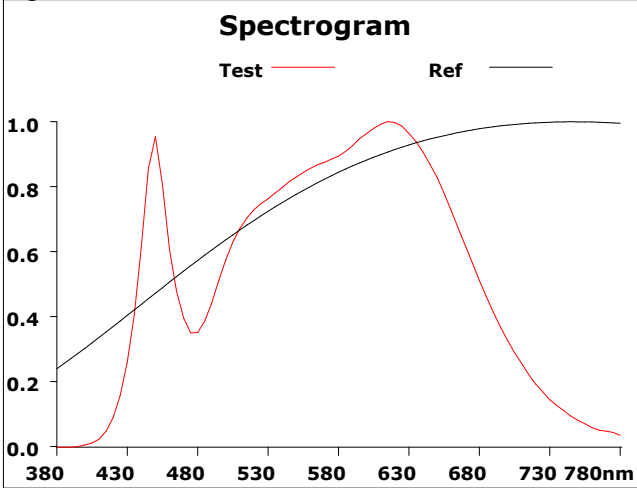
Electrical parameters:

Effic: 33.4 Lm/W Energy: 36.3 Effi: G
U: 220.7 V I: 0.297 A P: 37.430 W Pf: 0.571

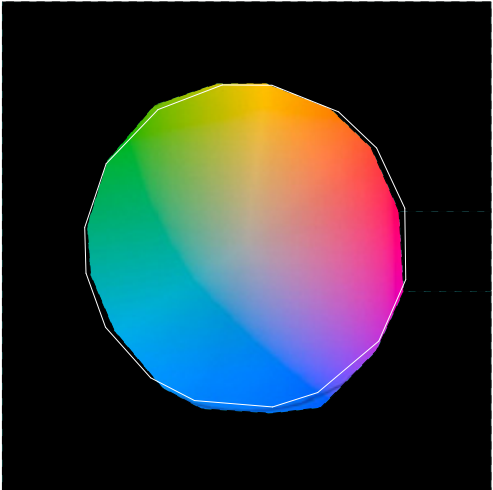
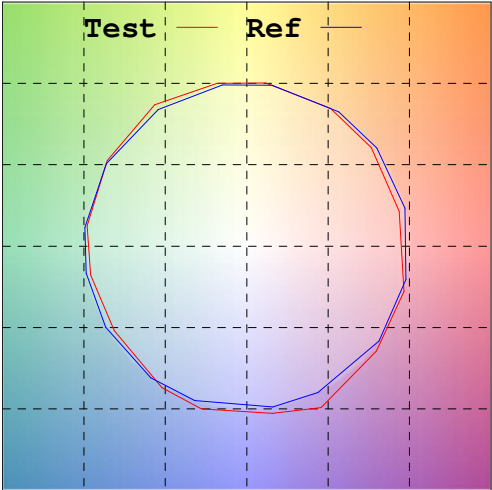
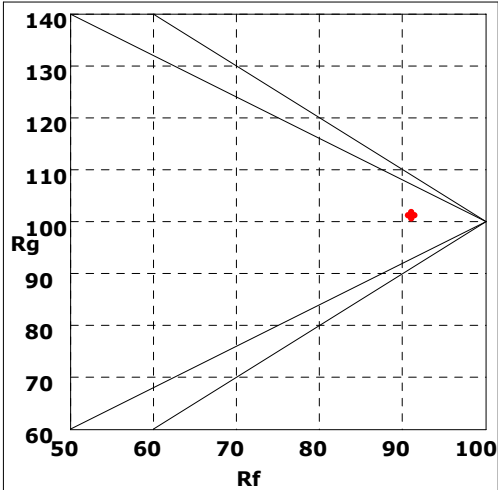
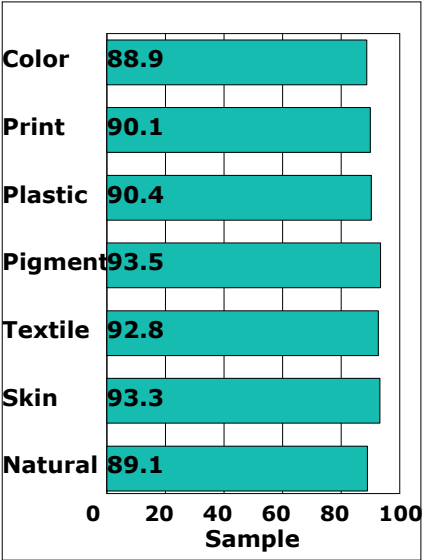
Product model:
Product number:
Tester:
Remarks:

Manufacturer:
Test unit:
Date of observation: 10/12/23

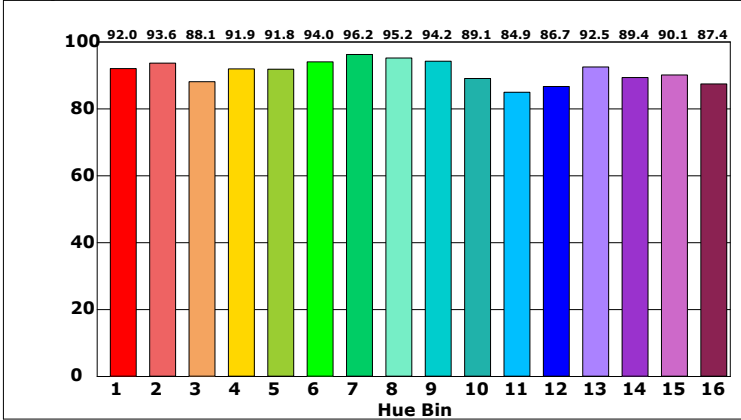
Rf: 91.0 CCT: 3882K u': 0.2282
Rg: 101.3 LER: 287.1 Duv: -0.00164 v': 0.5017



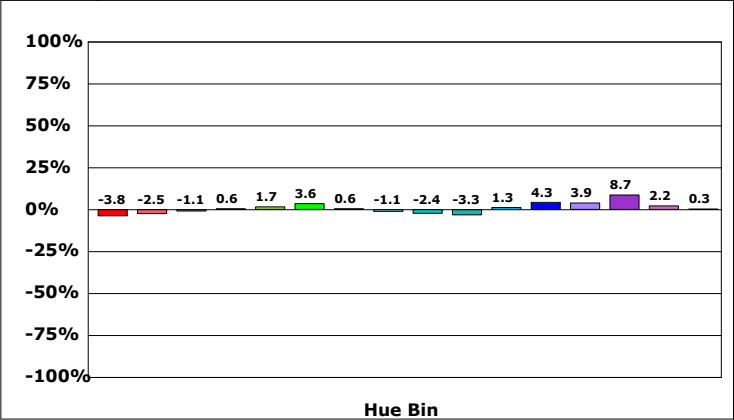
500			
Hue Bin	Rf	Chroma	Hue
1	92.0	-3.8%	-1.1%
2	93.6	-2.5%	2.1%
3	88.1	-1.1%	5.5%
4	91.9	0.6%	4.2%
5	91.8	1.7%	3.0%
6	94.0	3.6%	0.1%
7	96.2	0.6%	-1.9%
8	95.2	-1.1%	-1.1%
9	94.2	-2.4%	1.6%
10	89.1	-3.3%	4.8%
11	84.9	1.3%	9.1%
12	86.7	4.3%	5.1%
13	92.5	3.9%	-1.0%
14	89.4	8.7%	-3.5%
15	90.1	2.2%	-6.0%
16	87.4	0.3%	-7.3%



Rf by Bue

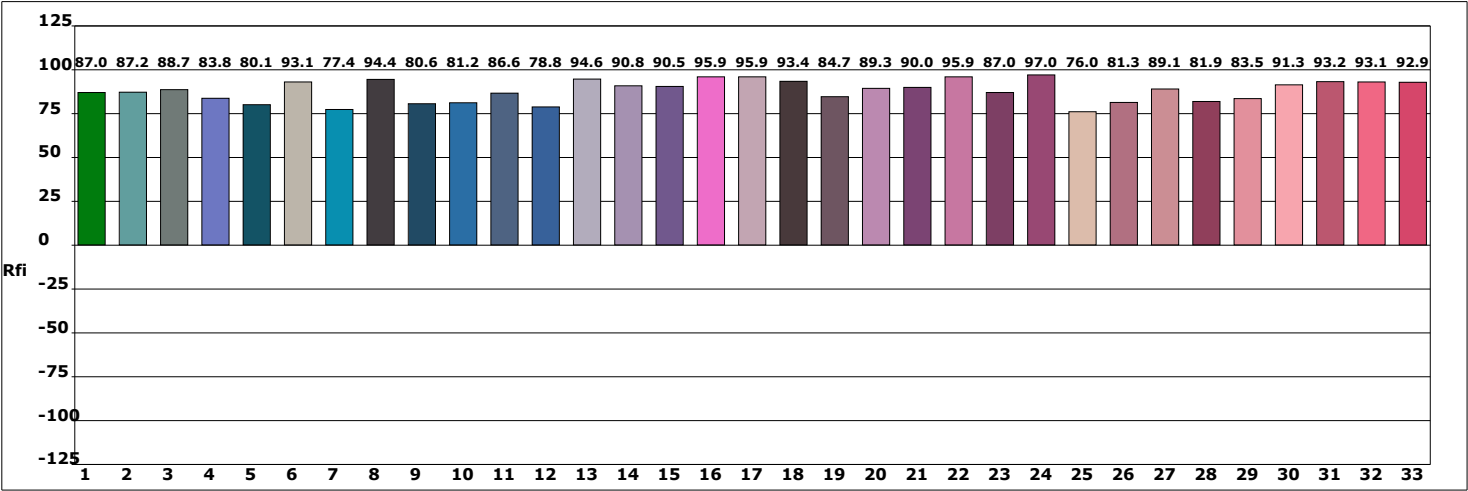
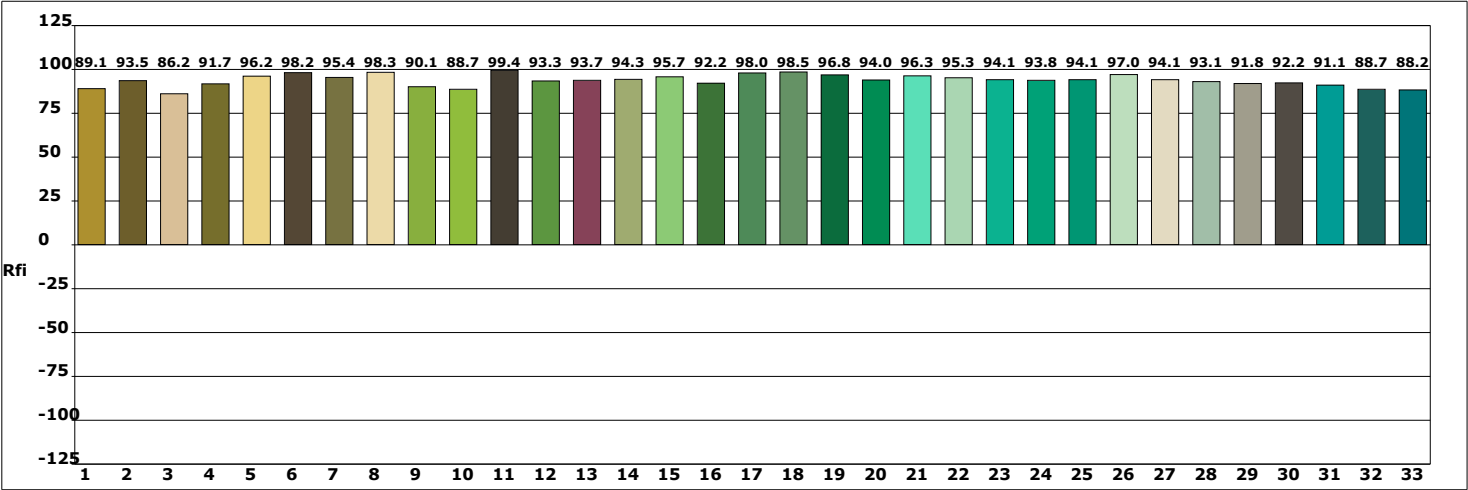
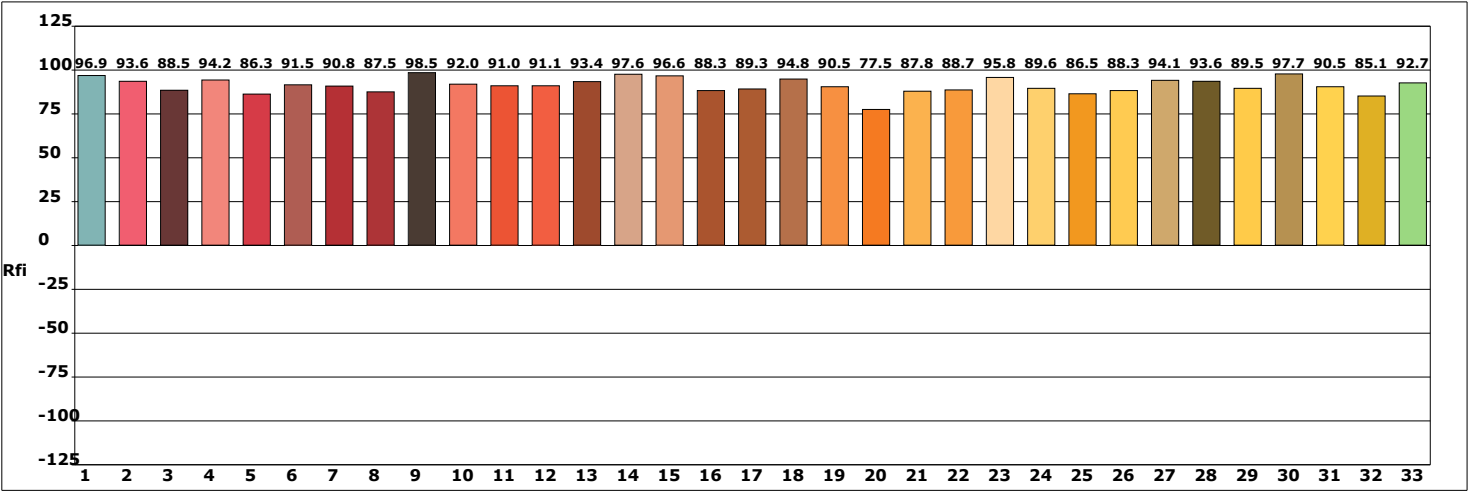


Chroma by Bue



Product model:
Product number:
Tester:
Remarks:

Manufacturer:
Test unit:
Date of observation: 10/12/23



Product model:
Product number:
Tester:
Remarks:

Manufacturer:
Test unit:
Date of observation: 10/12/23