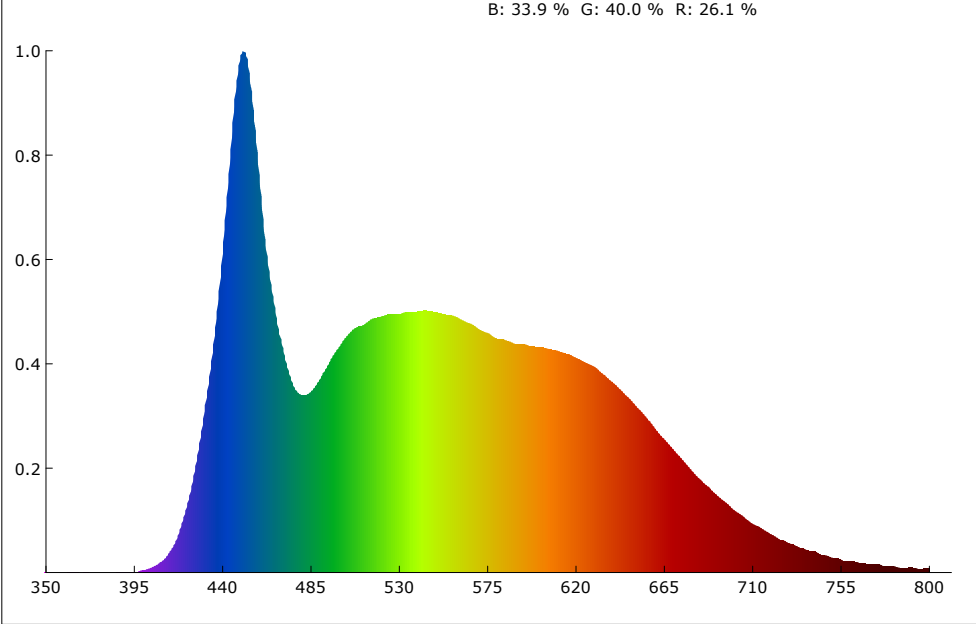
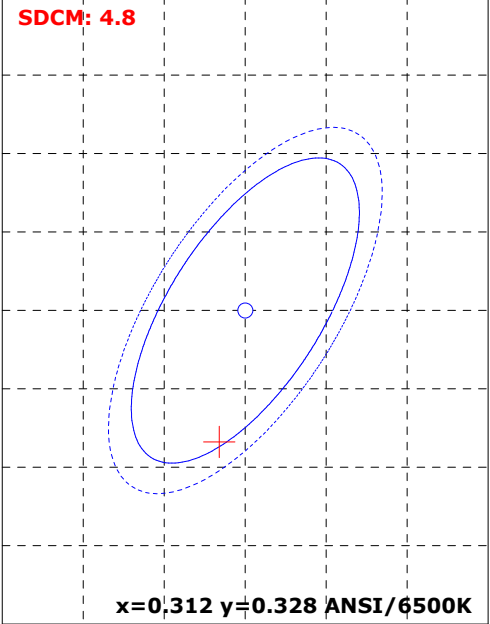


Spectrogram



SDCM



Color Parameter:

x: 0.3107 y: 0.3198 u: 0.1999 v: 0.3087 u': 0.1999 v': 0.4631
R_ratio: 26.1 % G_ratio: 40.0 % B_ratio: 33.9 % RedRatio: 14.7 % GreenRatio: 80.8 % BlueRatio: 4.5 %

Ra: 94.1 AvgR: 91.9
R1: 95.9 R2: 95.5 R3: 92.6 R4: 95.6 R5: 94.4 R6: 90.3 R7: 95.6 R8: 93.3
R9: 79.5 R10: 87.5 R11: 95.1 R12: 74.2 R13: 96.4 R14: 95.8 R15: 96.3

CCT: 6699 K Flux: 1986.735 lm PeakWave: 450.6 nm SDCM: 4.8
S/P: 2.4 CentralWave: 452.7 nm DominantWave: 483.6 nm CentroidWave: 548.4 nm
HalfWidth: 29.6 nm duv: -0.00054 purity: 8.8 % CQS: 89.1
LER(TM-30): 273.6 Ep: 7260.9 mw Rg: 100.6 Rf: 90.3
Red Ep: 1827.4 mw Near red Ep: 233.8 mw Near infrared Ep: 12.1 mw

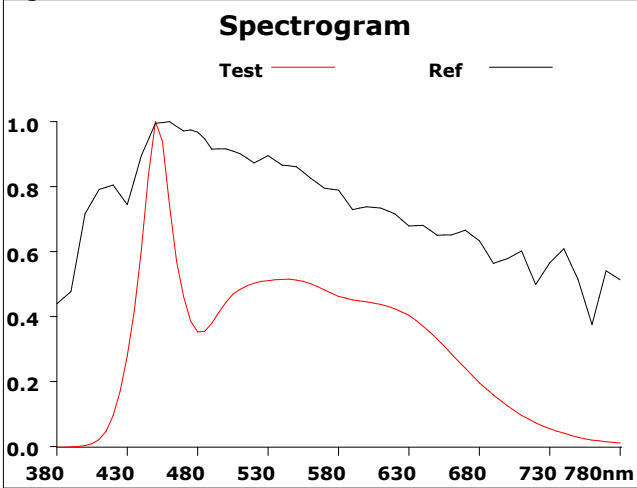
Electrical parameters:

Effic: 10.2 Lm/W Energy: 11.1 Effi: G
U: 220.4 V I: 1.277 A P: 194.200 W Pf: 0.689

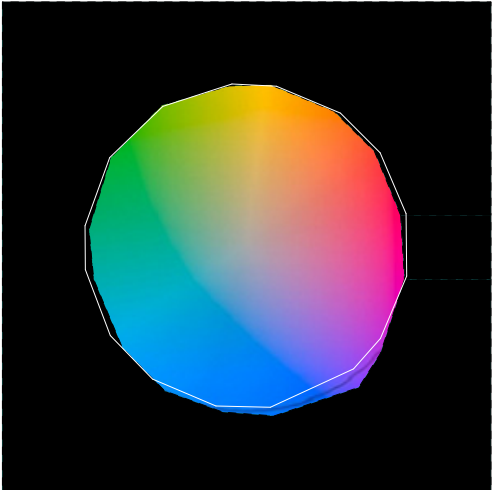
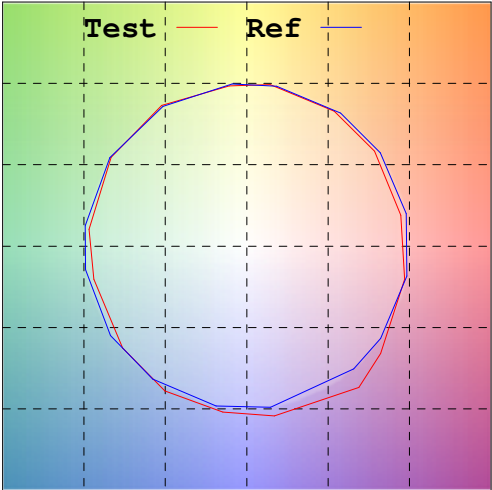
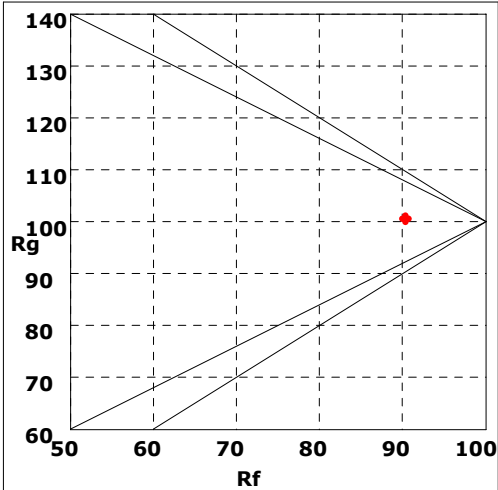
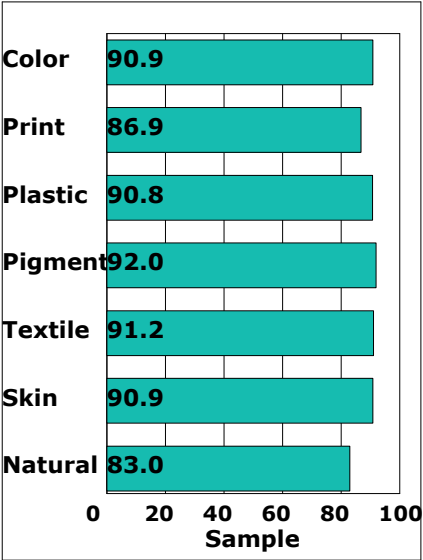
Product model:
Product number:
Tester:
Remarks:

Manufacturer:
Test unit:
Date of observation: 09/23/23

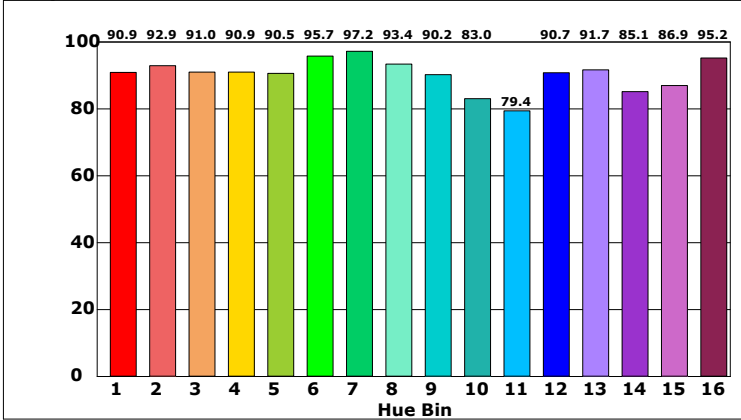
Rf: 90.3 CCT: 6699K u': 0.1999
Rg: 100.6 LER: 273.6 Duv: -0.00054 v': 0.4631



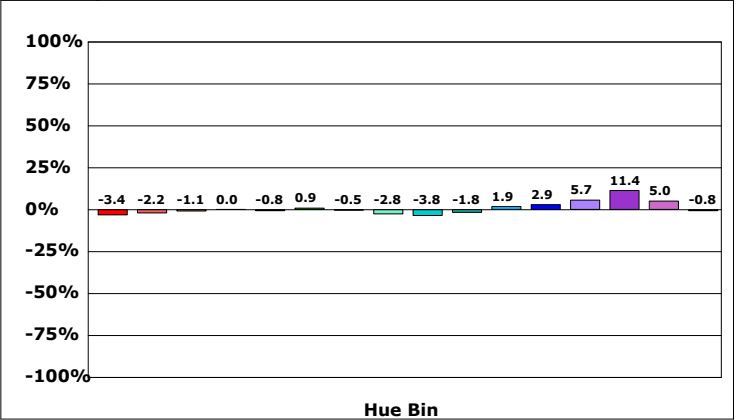
500			
Hue Bin	Rf	Chroma	Hue
1	90.9	-3.4%	-0.3%
2	92.9	-2.2%	2.7%
3	91.0	-1.1%	4.0%
4	90.9	0.0%	4.0%
5	90.5	-0.8%	1.9%
6	95.7	0.9%	0.3%
7	97.2	-0.5%	-0.5%
8	93.4	-2.8%	1.6%
9	90.2	-3.8%	6.7%
10	83.0	-1.8%	10.5%
11	79.4	1.9%	10.3%
12	90.7	2.9%	4.7%
13	91.7	5.7%	1.3%
14	85.1	11.4%	-3.6%
15	86.9	5.0%	-7.7%
16	95.2	-0.8%	-2.1%



Rf by Bue

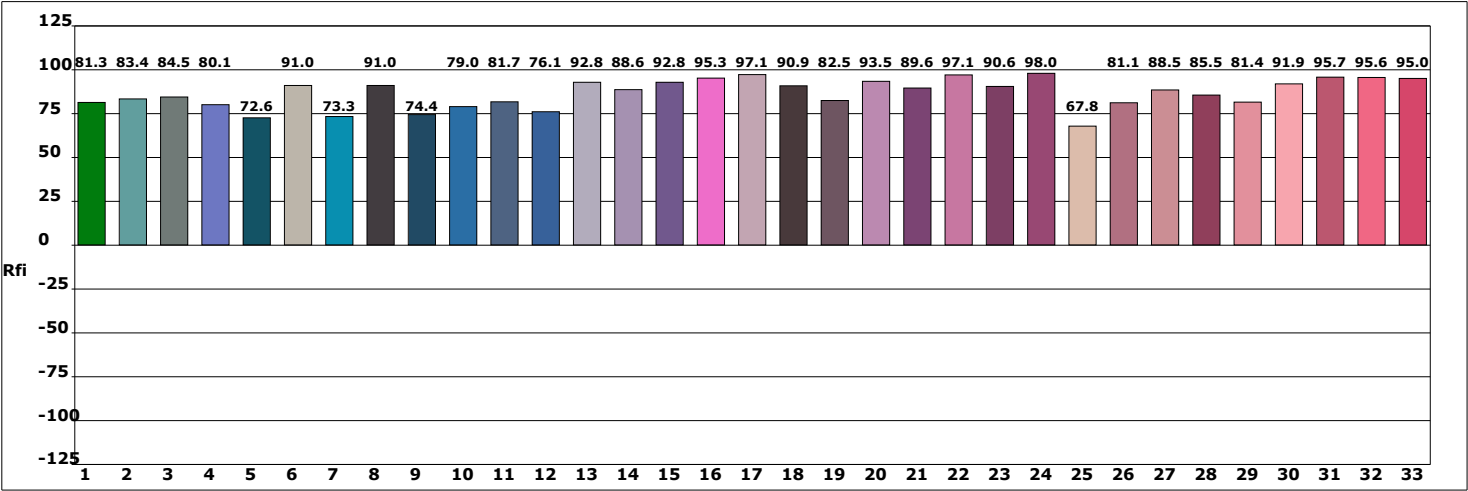
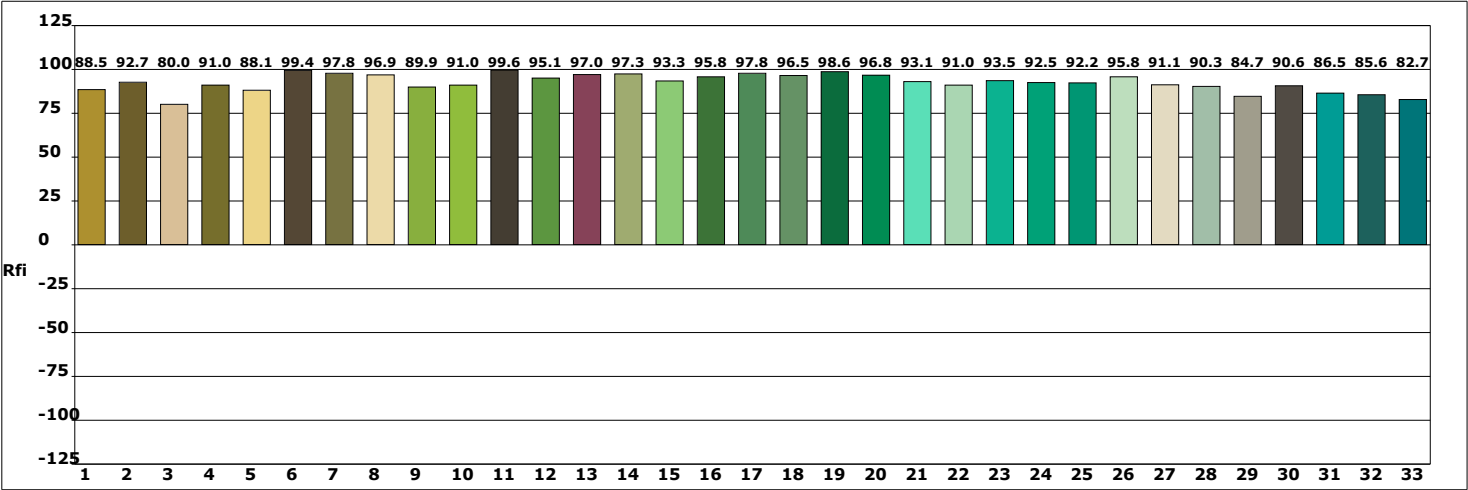
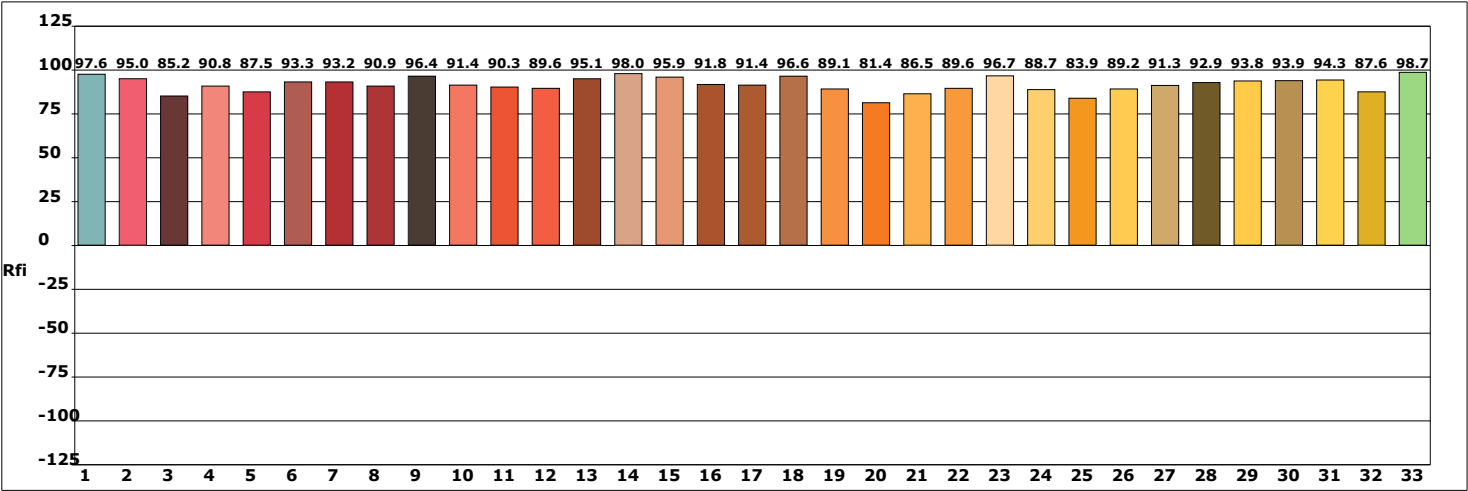


Chroma by Bue



Product model:
Product number:
Tester:
Remarks:

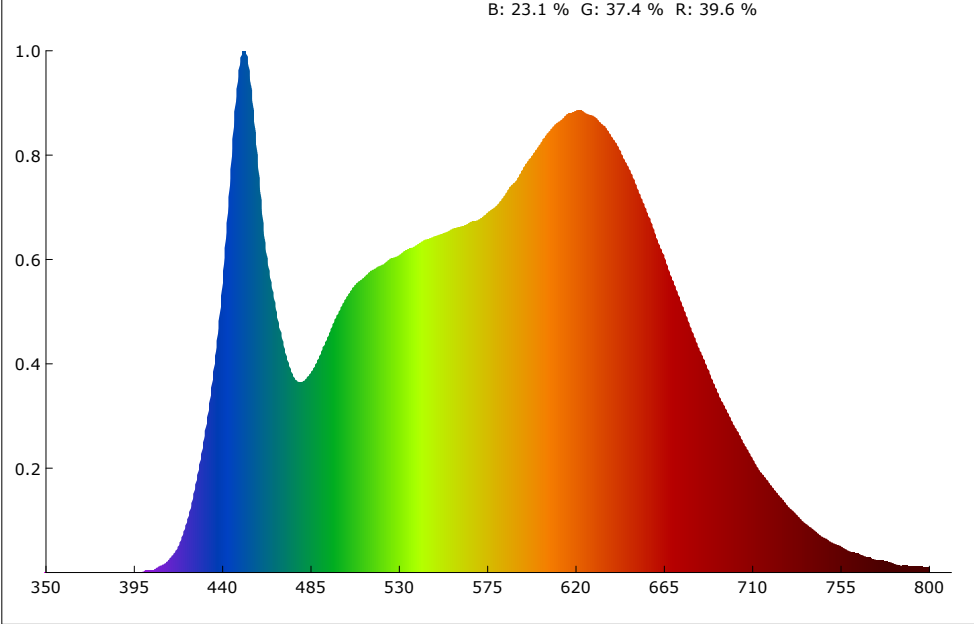
Manufacturer:
Test unit:
Date of observation: 09/23/23



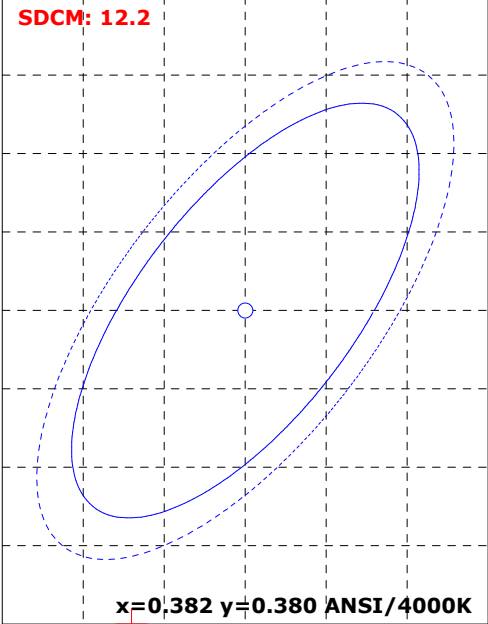
Product model:
Product number:
Tester:
Remarks:

Manufacturer:
Test unit:
Date of observation: 09/23/23

Spectrogram



SDCM



Color Parameter:

x: 0.3748	y: 0.3509	u: 0.2320	v: 0.3259	u': 0.2320	v': 0.4888		
R_ratio: 39.6 %	G_ratio: 37.4 %	B_ratio: 23.1 %	RedRatio: 21.1 %	GreenRatio: 75.7 %	BlueRatio: 3.2 %		
Ra: 95.5		AvgR: 94.4					
R1: 94.3	R2: 95.5	R3: 97.1	R4: 94.9	R5: 95.0	R6: 92.4	R7: 96.1	R8: 98.7
R9: 96.0	R10: 93.4	R11: 91.8	R12: 85.1	R13: 94.0	R14: 97.7	R15: 93.9	
CCT: 3958 K		Flux: 1776.556 lm	PeakWave: 451.6 nm	SDCM: 12.2			
S/P: 1.9		CentralWave: 453.3 nm	DominantWave: 588.6 nm	CentroidWave: 574.5 nm			
HalfWidth: 28.2 nm		duv: -0.01091	purity: 17.8 %	CQS: 83.5			
LER(TM-30): 270.0		Ep: 6580.6 mw	Rg: 104.1	Rf: 92.6			
Red Ep: 2477.5 mw		Near red Ep: 310.9 mw	Near infrared Ep: 10.6 mw				

Electrical parameters:

Effic: 10.1 Lm/W	Energy: 11.0	Effi: G	
U: 220.7 V	I: 1.171 A	P: 176.600 W	Pf: 0.683

Product model:

Product number:

Tester:

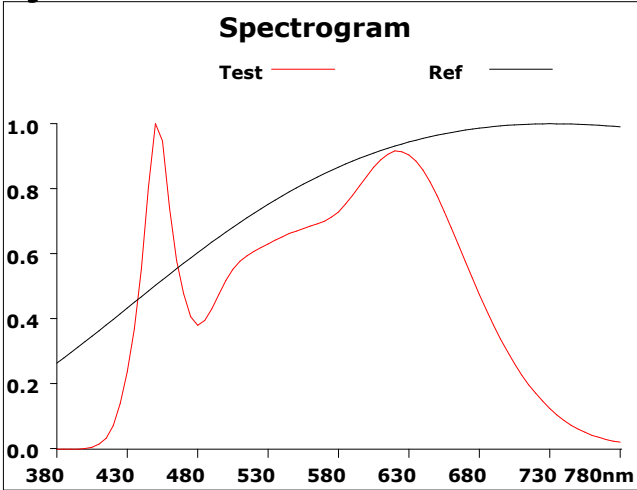
Remarks:

Manufacturer:

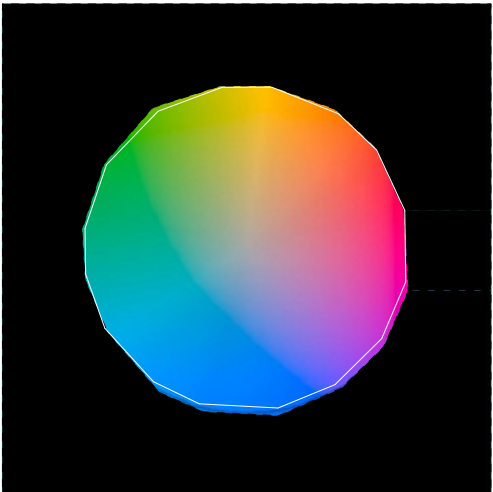
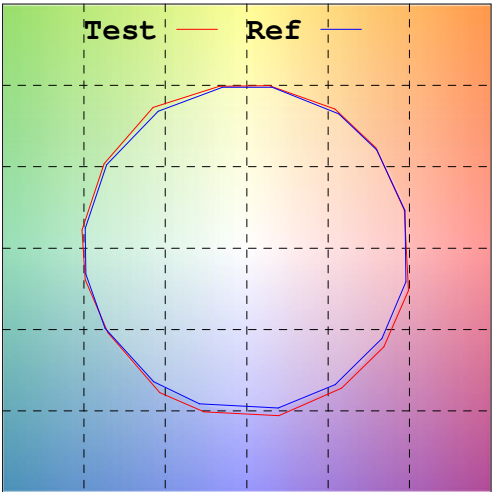
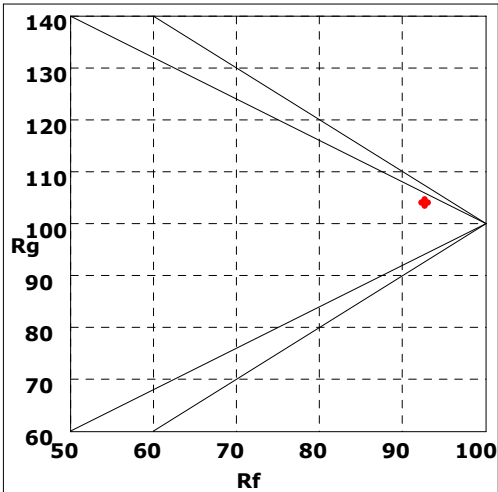
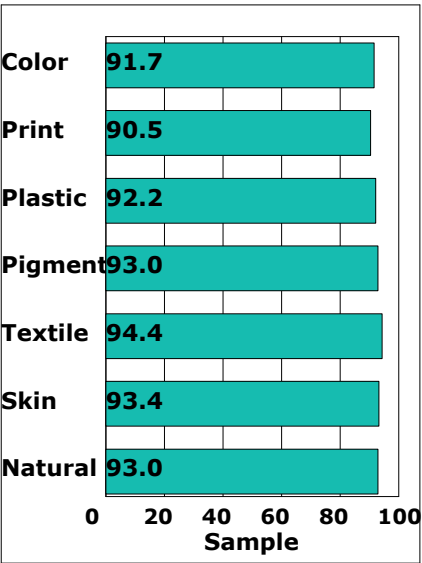
Test unit:

Date of observation: 09/23/23

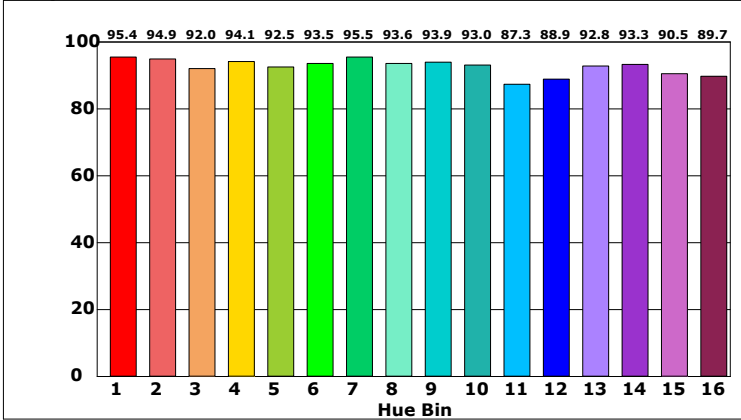
Rf: 92.6 CCT: 3958K u': 0.2320
Rg: 104.1 LER: 270.0 Duv: -0.01091 v': 0.4888



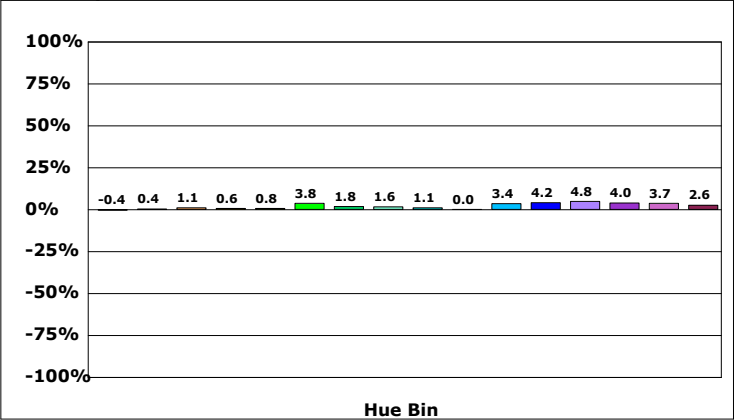
500			
Hue Bin	Rf	Chroma	Hue
1	95.4	-0.4%	0.2%
2	94.9	0.4%	1.5%
3	92.0	1.1%	3.4%
4	94.1	0.6%	1.9%
5	92.5	0.8%	1.8%
6	93.5	3.8%	1.2%
7	95.5	1.8%	0.4%
8	93.6	1.6%	1.4%
9	93.9	1.1%	3.1%
10	93.0	0.0%	3.3%
11	87.3	3.4%	6.8%
12	88.9	4.2%	3.6%
13	92.8	4.8%	-0.7%
14	93.3	4.0%	2.1%
15	90.5	3.7%	-3.6%
16	89.7	2.6%	-4.8%



Rf by Bue

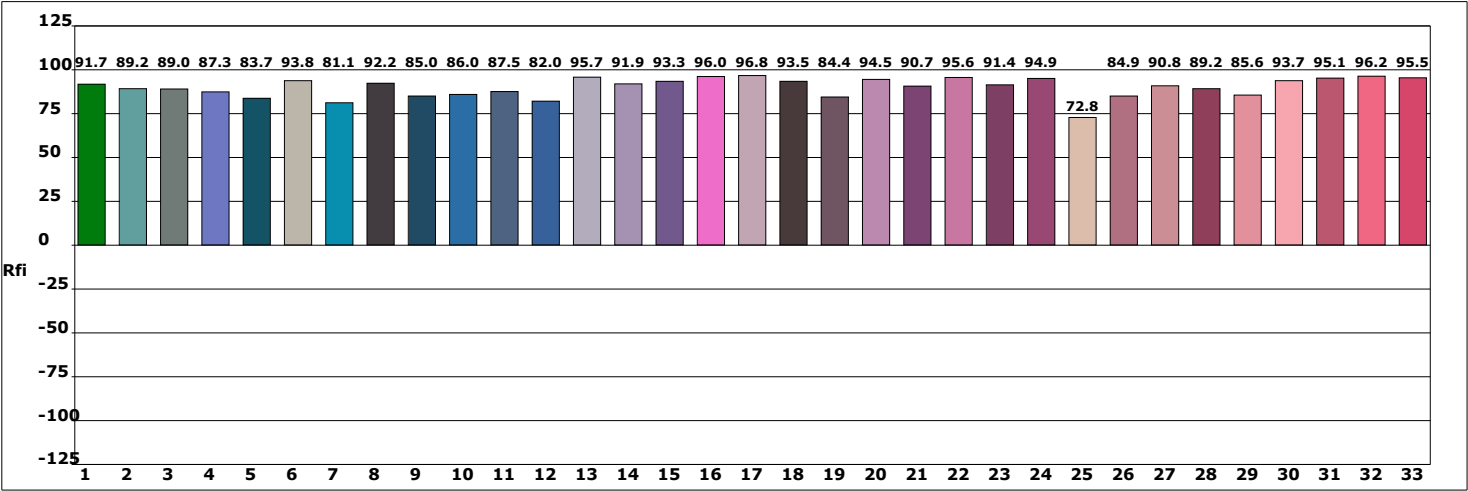
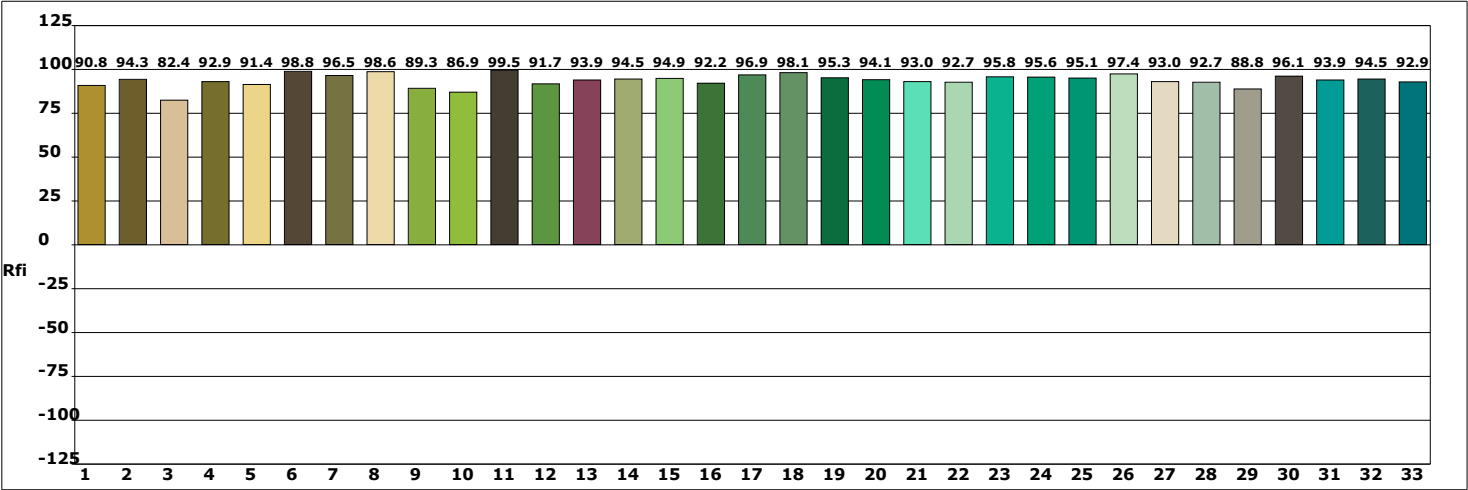
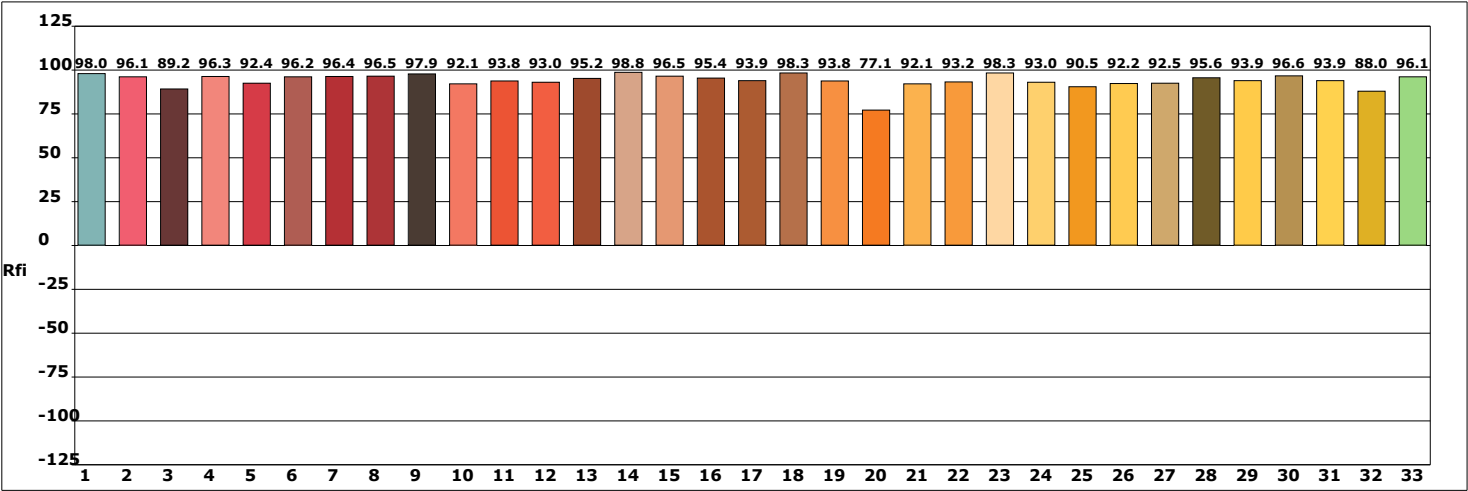


Chroma by Bue



Product model:
Product number:
Tester:
Remarks:

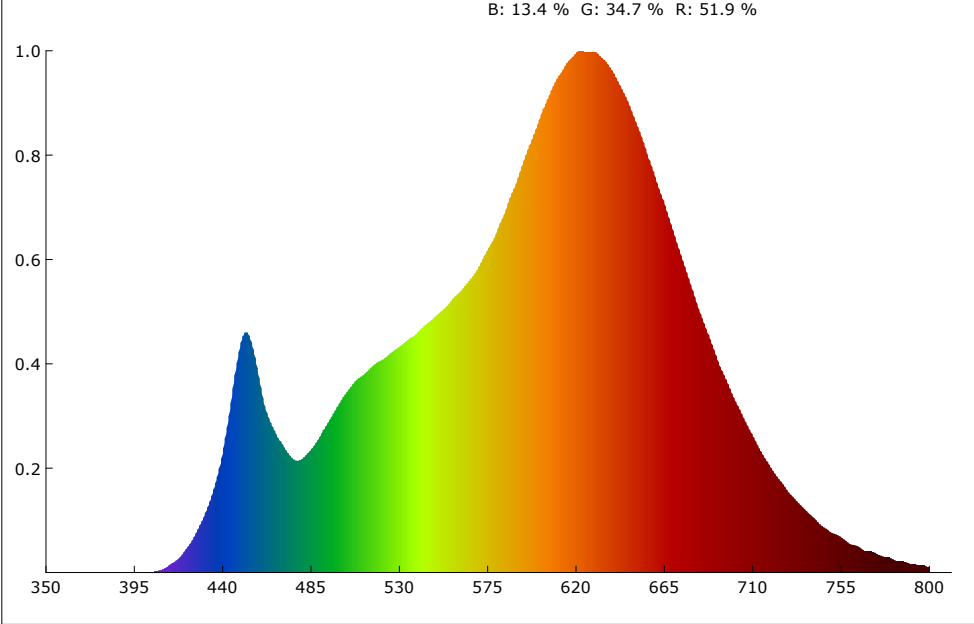
Manufacturer:
Test unit:
Date of observation: 09/23/23



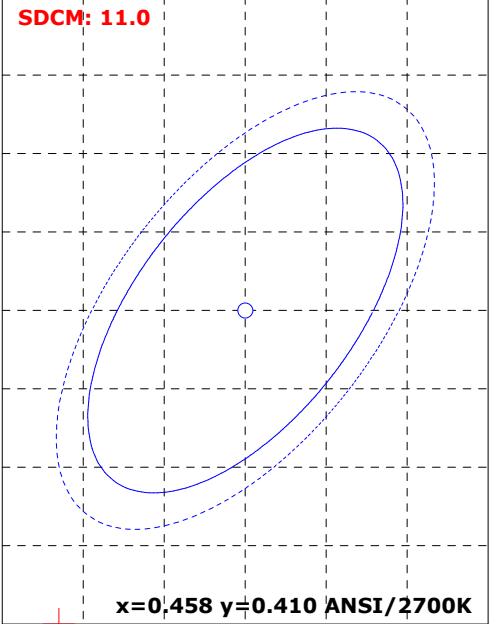
Product model:
Product number:
Tester:
Remarks:

Manufacturer:
Test unit:
Date of observation: 09/23/23

Spectrogram



SDCM



Color Parameter:

x: 0.4463 y: 0.3846 u: 0.2656 v: 0.3433 u': 0.2656 v': 0.5150
R_ratio: 51.9 % G_ratio: 34.7 % B_ratio: 13.4 % RedRatio: 27.2 % GreenRatio: 70.8 % BlueRatio: 2.0 %

Ra: 93.3 AvgR: 92.4
R1: 97.9 R2: 95.3 R3: 94.8 R4: 96.4 R5: 96.1 R6: 88.9 R7: 89.8 R8: 87.6
R9: 79.5 R10: 91.1 R11: 93.0 R12: 83.4 R13: 96.4 R14: 98.3 R15: 97.8

CCT: 2684 K Flux: 1543.851 lm PeakWave: 621.6 nm SDCM: 11.0
S/P: 1.4 CentralWave: 617.4 nm DominantWave: 587.8 nm CentroidWave: 598.4 nm
HalfWidth: 130.3 nm duv: -0.00880 purity: 49.4 % CQS: 85.1
LER(TM-30): 263.6 Ep: 5856.8 mw Rg: 104.7 Rf: 91.9
Red Ep: 2833.8 mw Near red Ep: 385.4 mw Near infrared Ep: 14.6 mw

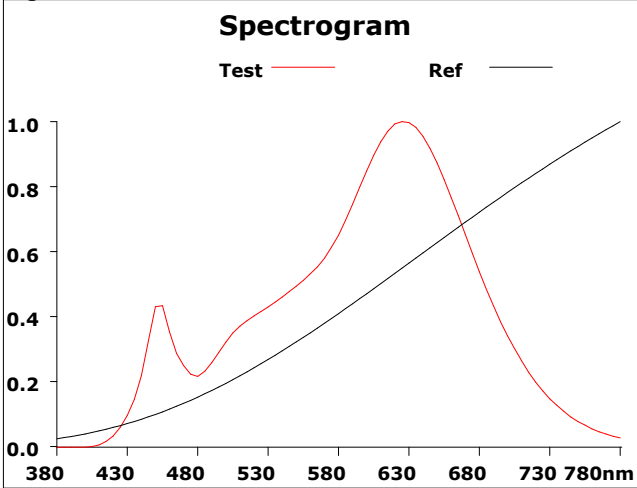
Electrical parameters:

Effic: 8.4 Lm/W Energy: 9.1 Effi: G
U: 220.5 V I: 1.219 A P: 184.500 W Pf: 0.686

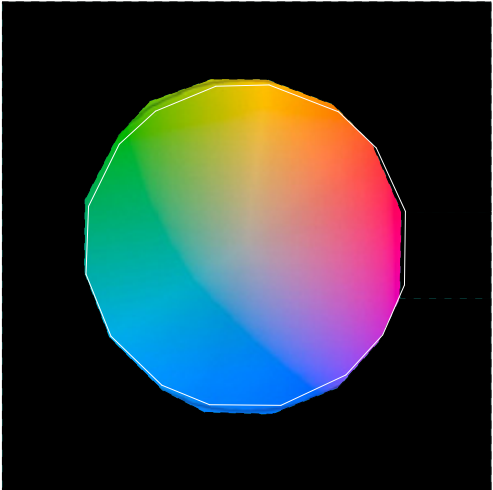
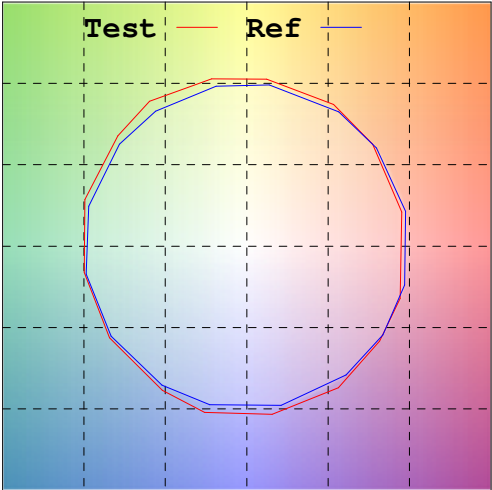
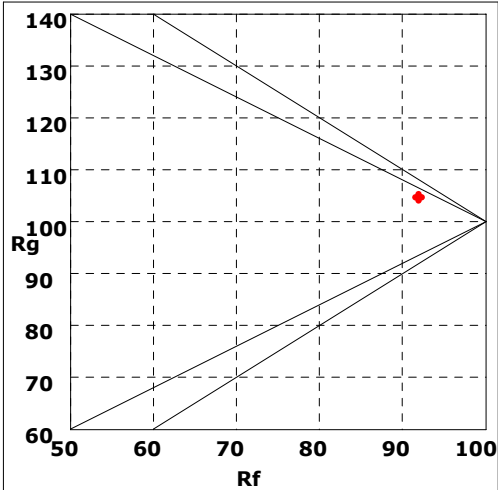
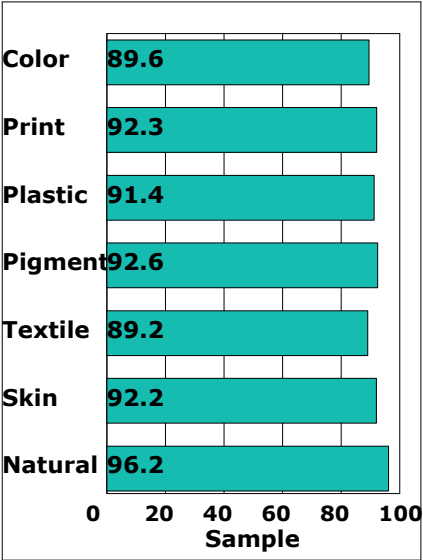
Product model:
Product number:
Tester:
Remarks:

Manufacturer:
Test unit:
Date of observation: 09/23/23

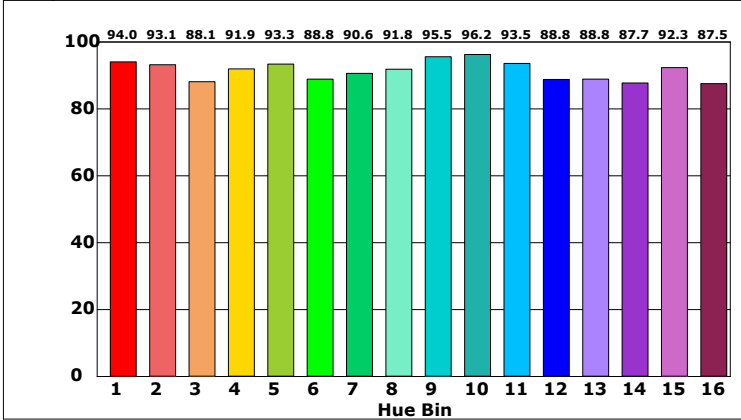
Rf: 91.9 CCT: 2684K u': 0.2656
Rg: 104.7 LER: 263.6 Duv: -0.00880 v': 0.5150



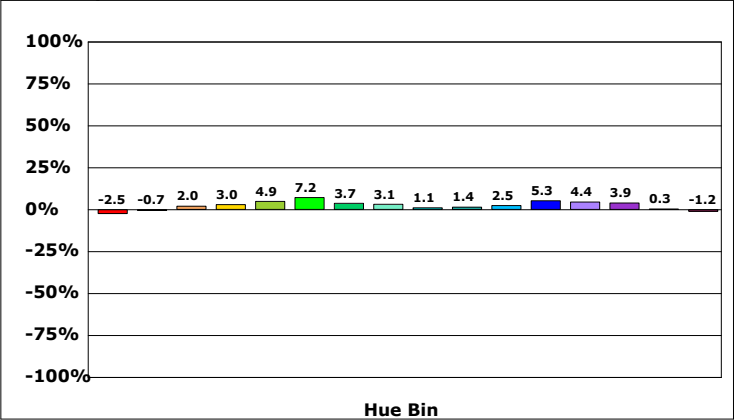
500			
Hue Bin	Rf	Chroma	Hue
1	94.0	-2.5%	0.1%
2	93.1	-0.7%	3.2%
3	88.1	2.0%	5.2%
4	91.9	3.0%	2.2%
5	93.3	4.9%	1.9%
6	88.8	7.2%	-0.2%
7	90.6	3.7%	-3.8%
8	91.8	3.1%	-3.7%
9	95.5	1.1%	-1.2%
10	96.2	1.4%	0.2%
11	93.5	2.5%	1.9%
12	88.8	5.3%	-2.2%
13	88.8	4.4%	-6.5%
14	87.7	3.9%	-8.3%
15	92.3	0.3%	-4.3%
16	87.5	-1.2%	-8.7%



Rf by Bue

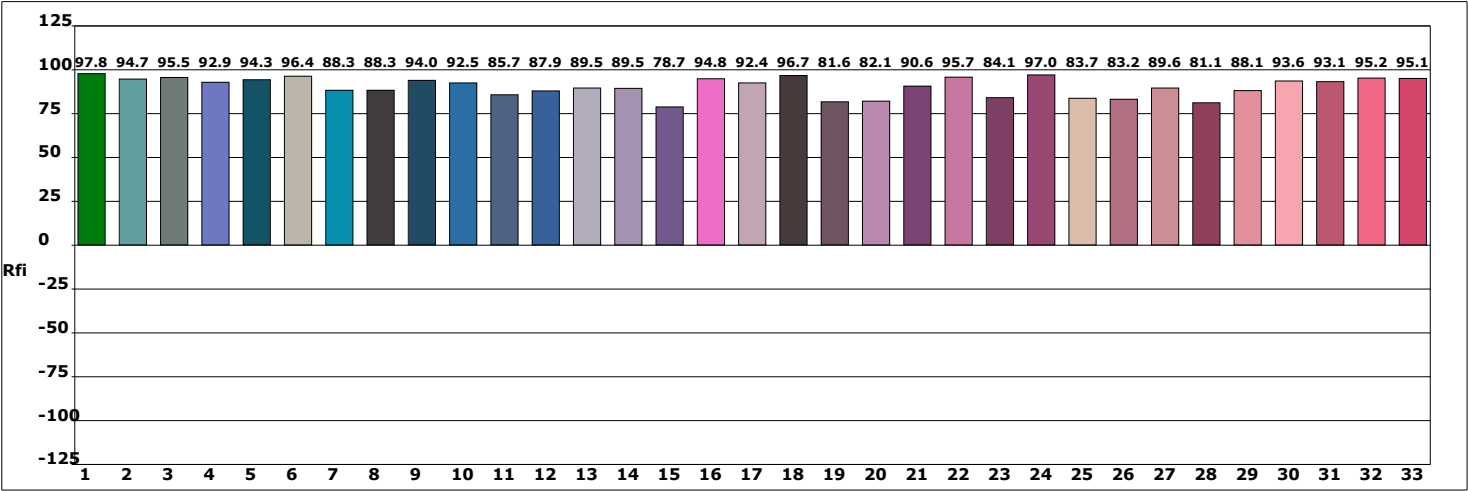
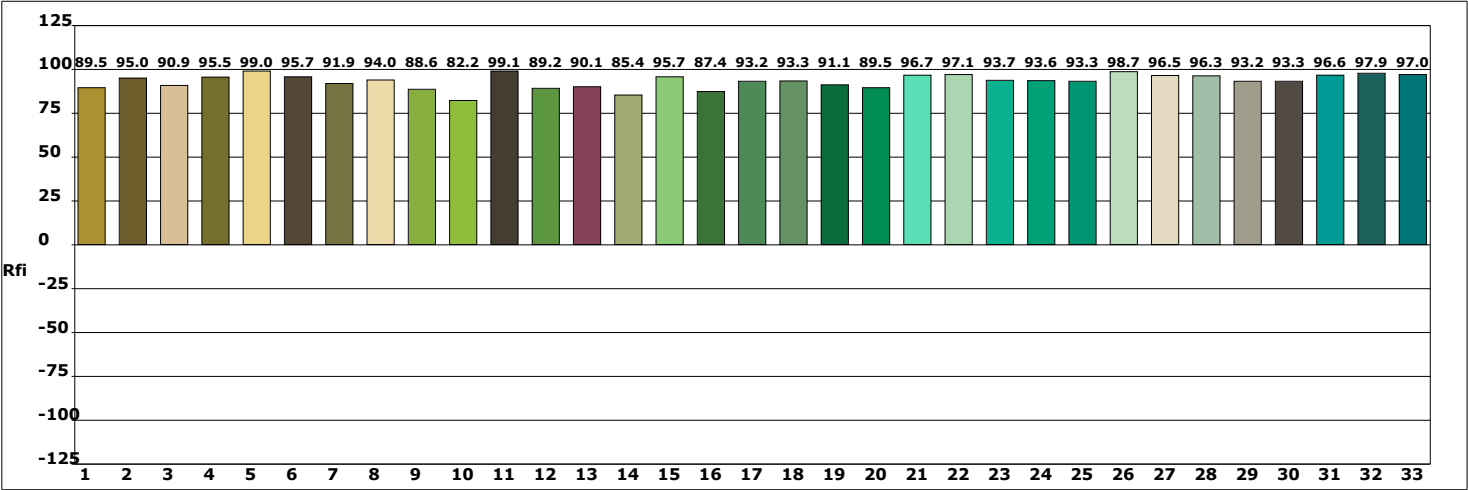
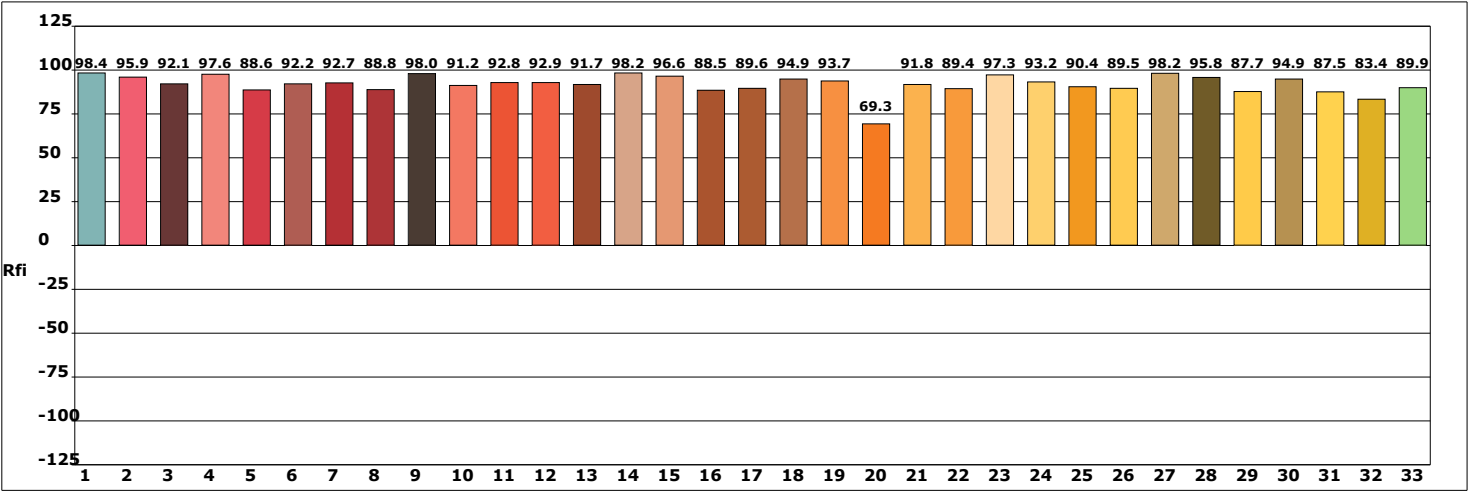


Chroma by Bue



Product model:
Product number:
Tester:
Remarks:

Manufacturer:
Test unit:
Date of observation: 09/23/23



Product model:
Product number:
Tester:
Remarks:

Manufacturer:
Test unit:
Date of observation: 09/23/23