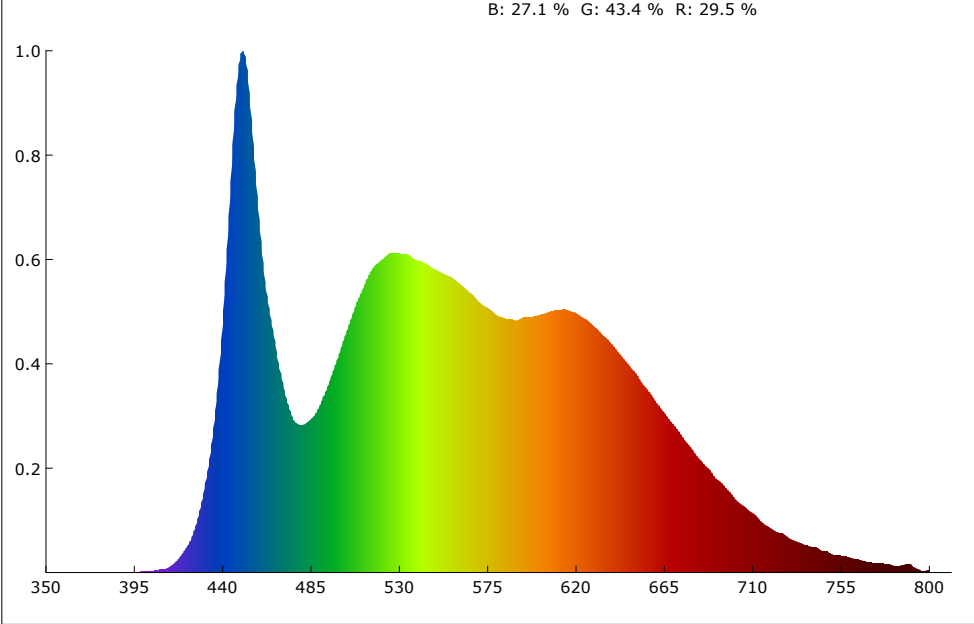
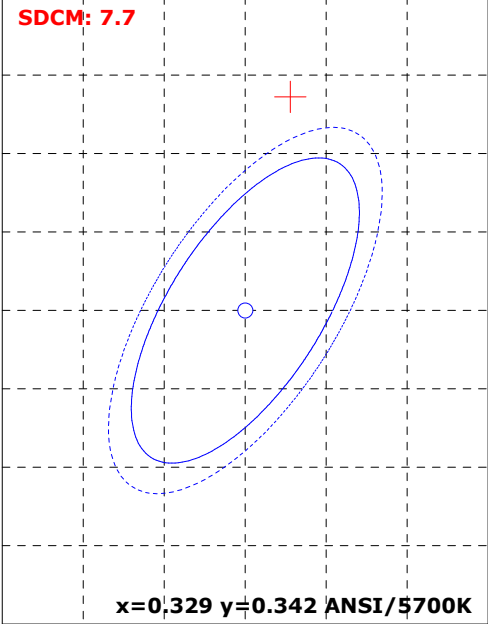


Spectrogram



SDCM



Color Parameter:

x: 0.3315 y: 0.3553 u: 0.2009 v: 0.3230 u': 0.2009 v': 0.4845
R_ratio: 29.5 % G_ratio: 43.4 % B_ratio: 27.1 % RedRatio: 15.3 % GreenRatio: 81.3 % BlueRatio: 3.5 %

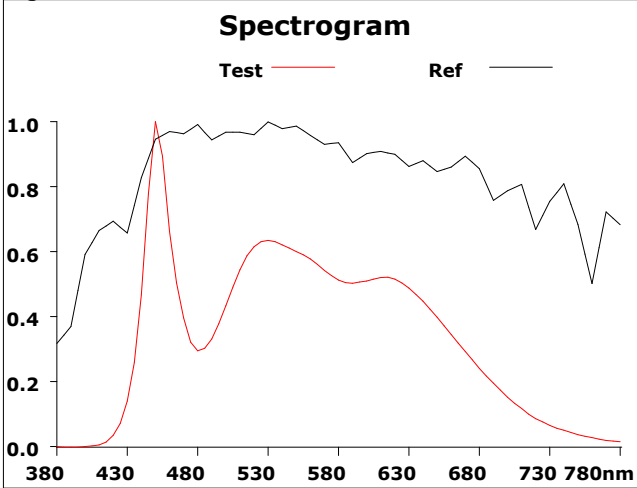
Ra: 90.7 AvgR: 86.5
R1: 91.0 R2: 91.0 R3: 90.2 R4: 91.9 R5: 89.8 R6: 87.4 R7: 95.5 R8: 88.8
R9: 63.7 R10: 78.1 R11: 90.5 R12: 65.2 R13: 90.7 R14: 94.4 R15: 89.3

CCT: 5542 K Flux: 2131.900 lm PeakWave: 450.6 nm SDCM: 7.7
S/P: 2.1 CentralWave: 452.7 nm DominantWave: 550.3 nm CentroidWave: 558.5 nm
HalfWidth: 23.5 nm duv: 0.00754 purity: 6.2 % CQS: 92.9
LER(TM-30): 294.4 Ep: 7242.5 mw Rg: 99.1 Rf: 89.0
Red Ep: 2051.6 mw Near red Ep: 263.8 mw Near infrared Ep: 13.1 mw

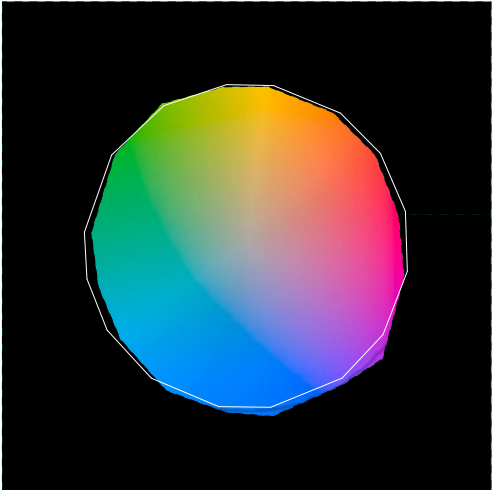
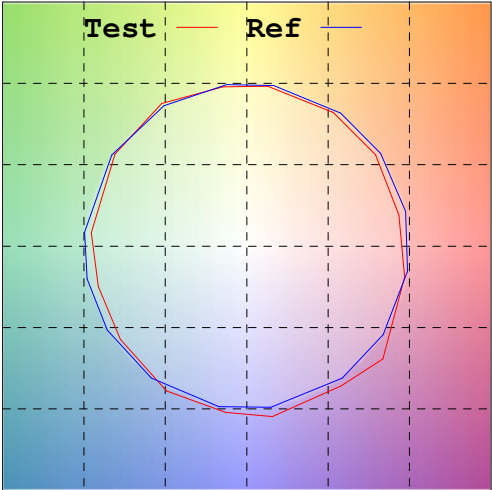
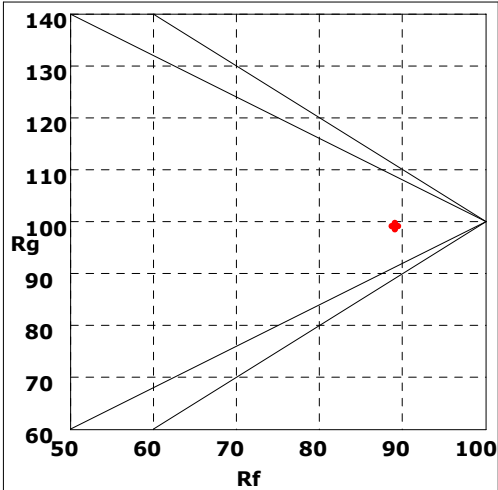
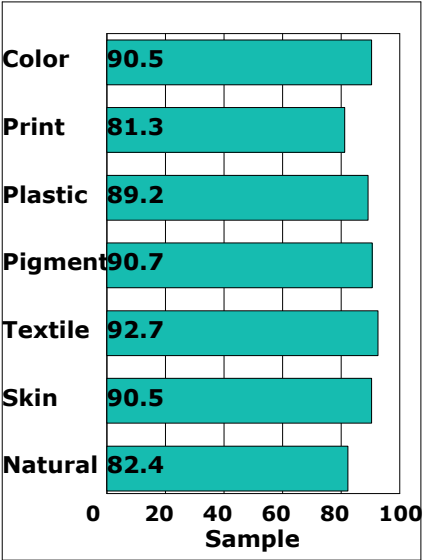
Electrical parameters:

Effic: 35.7 lm/W Energy: 38.8 Effi: G
U: 219.7 V I: 0.447 A P: 59.790 W Pf: 0.608

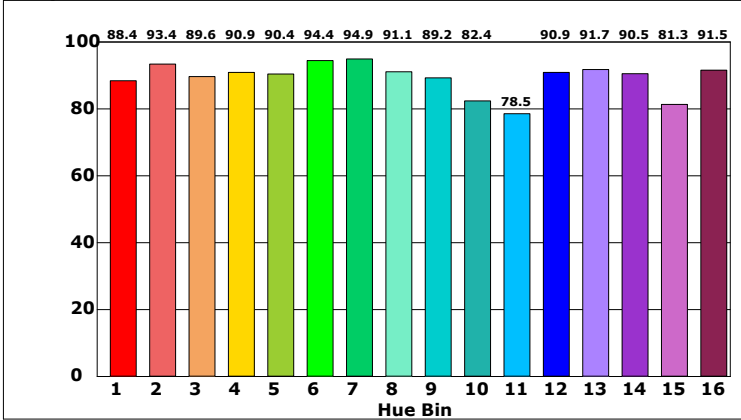
Rf: 89.0 CCT: 5542K u': 0.2009
Rg: 99.1 LER: 294.4 Duv: 0.00754 v': 0.4845



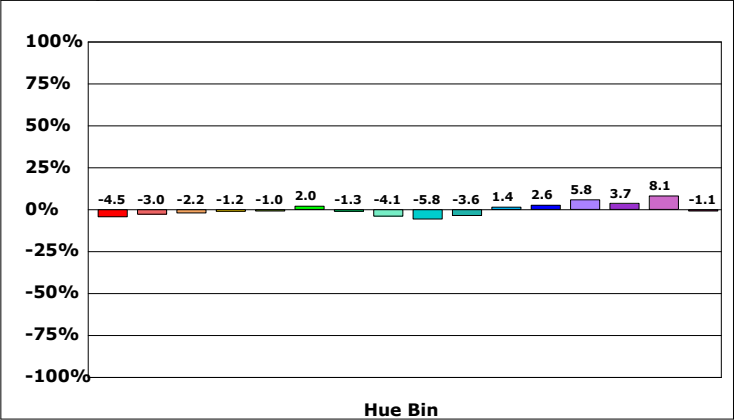
500			
Hue Bin	Rf	Chroma	Hue
1	88.4	-4.5%	-1.4%
2	93.4	-3.0%	1.2%
3	89.6	-2.2%	4.1%
4	90.9	-1.2%	3.5%
5	90.4	-1.0%	2.6%
6	94.4	2.0%	0.3%
7	94.9	-1.3%	-1.6%
8	91.1	-4.1%	-0.4%
9	89.2	-5.8%	5.9%
10	82.4	-3.6%	9.2%
11	78.5	1.4%	12.1%
12	90.9	2.6%	4.8%
13	91.7	5.8%	-0.1%
14	90.5	3.7%	-2.9%
15	81.3	8.1%	-12.7%
16	91.5	-1.1%	-3.9%



Rf by Bue

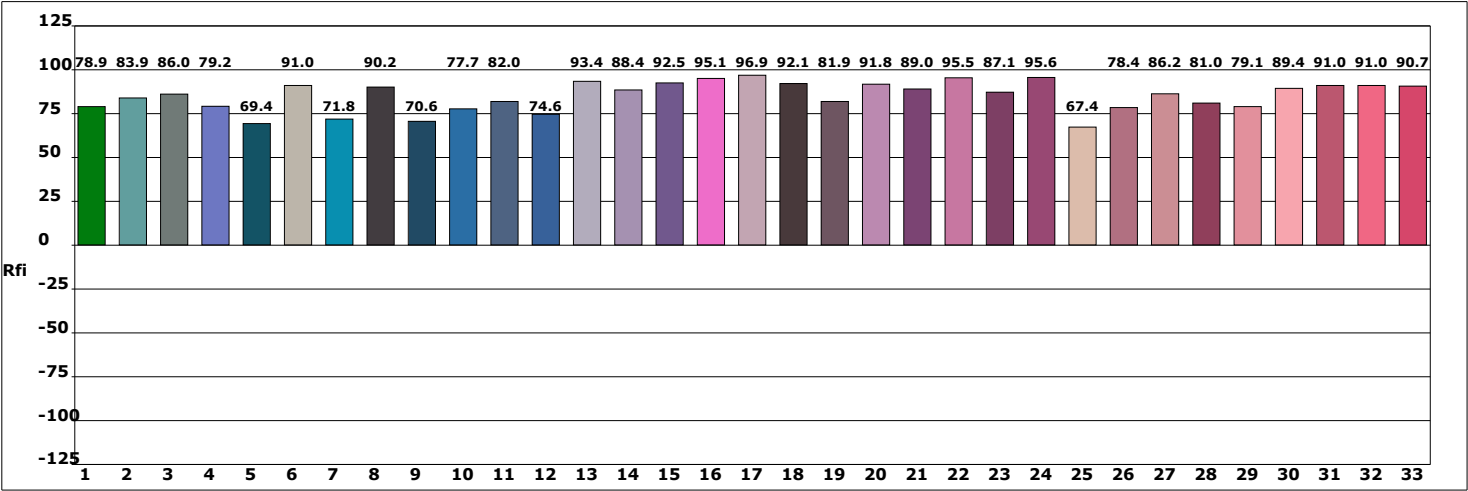
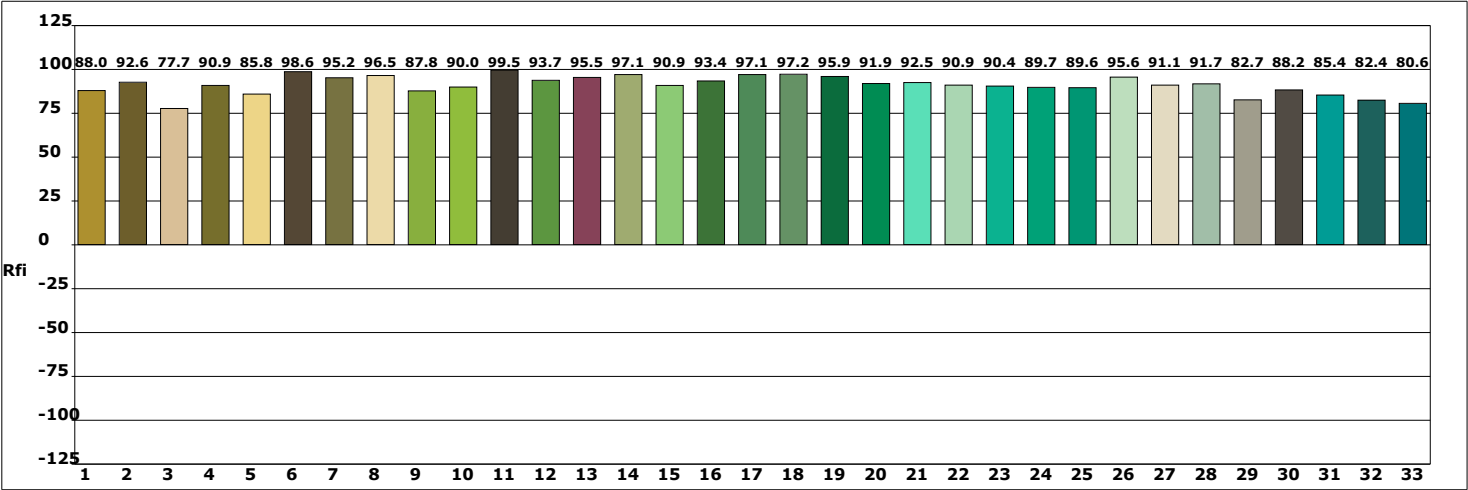
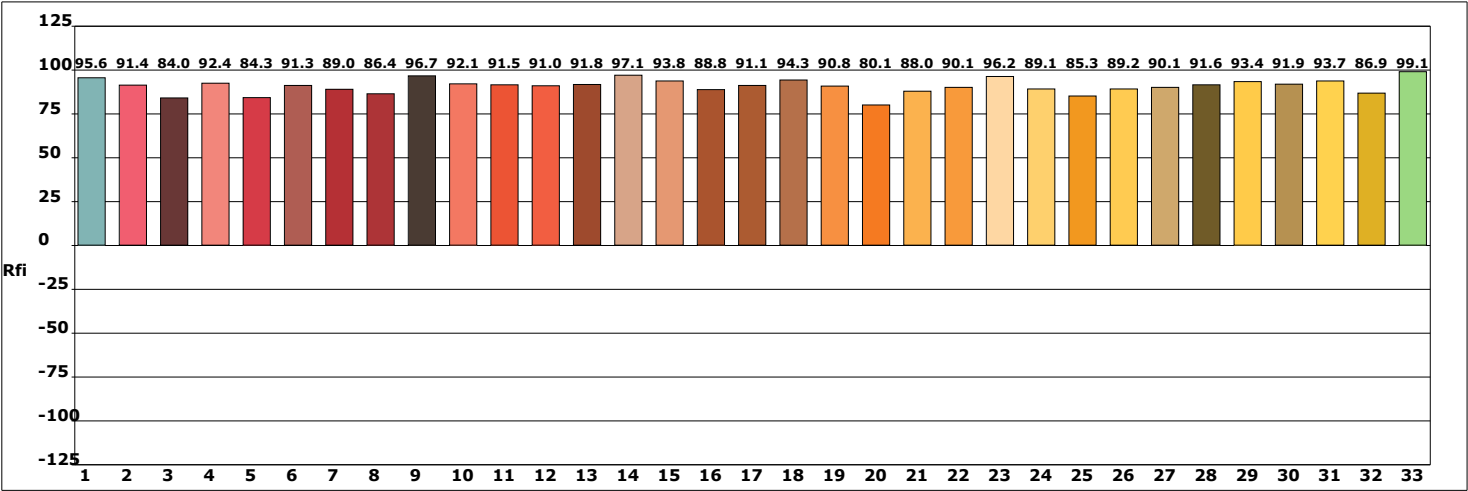


Chroma by Bue



Product model:
Product number:
Tester:
Remarks:

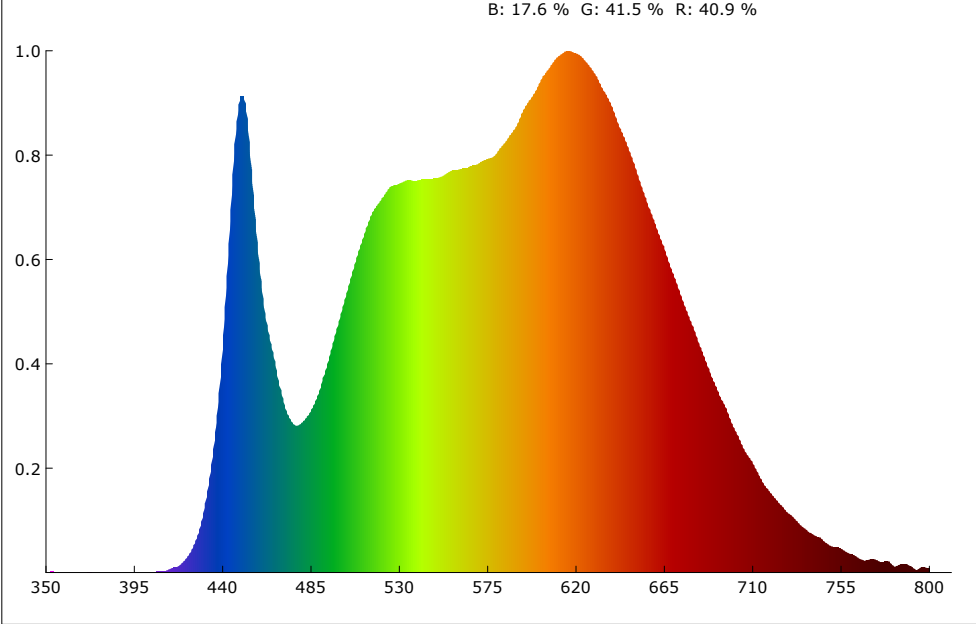
Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 04/30/14



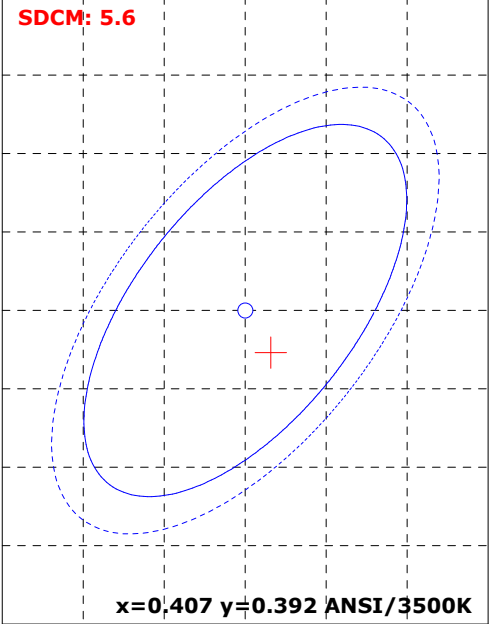
Product model:
Product number:
Tester:
Remarks:

Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 04/30/14

Spectrogram



SDCM



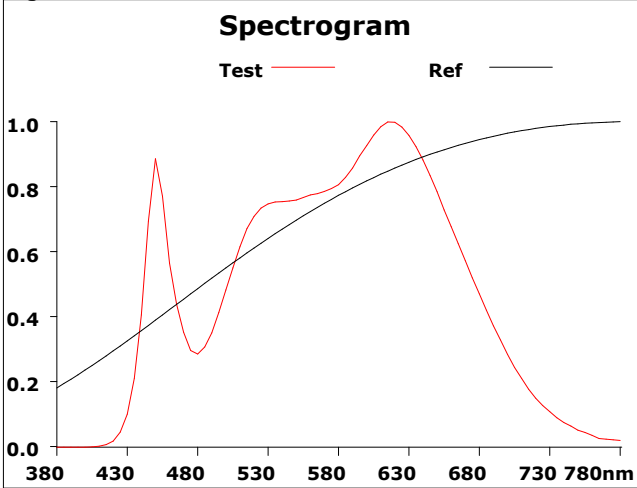
Color Parameter:

x: 0.3966	y: 0.3873	u: 0.2314	v: 0.3390	u': 0.2314	v': 0.5085		
R_ratio: 40.9 %	G_ratio: 41.5 %	B_ratio: 17.6 %	RedRatio: 20.7 %	GreenRatio: 77.1 %	BlueRatio: 2.3 %		
Ra: 94.5		AvgR: 91.4					
R1: 96.2	R2: 95.6	R3: 93.7	R4: 96.0	R5: 95.1	R6: 94.0	R7: 96.1	R8: 89.6
R9: 71.6	R10: 88.3	R11: 95.0	R12: 75.0	R13: 96.2	R14: 95.7	R15: 93.5	
CCT: 3672 K		Flux: 1702.945 lm	PeakWave: 616.6 nm	SDCM: 5.6			
S/P: 1.7		CentralWave: 588.3 nm	DominantWave: 580.0 nm	CentroidWave: 579.4 nm			
HalfWidth: 174.8 nm		duv: 0.00050	purity: 35.3 %	CQS: 90.2			
LER(TM-30): 297.0		Ep: 5734.2 mw	Rg: 100.8	Rf: 91.3			
Red Ep: 2242.3 mw		Near red Ep: 241.2 mw	Near infrared Ep: 7.9 mw				

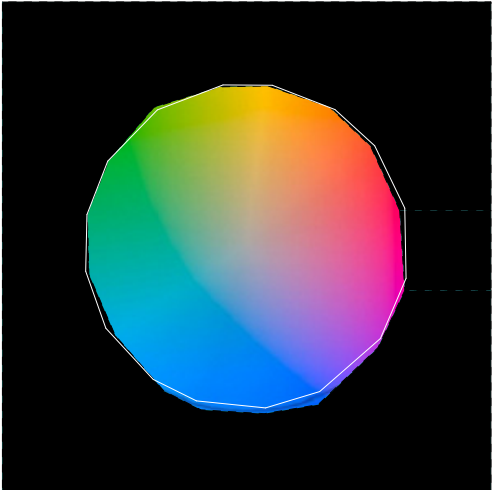
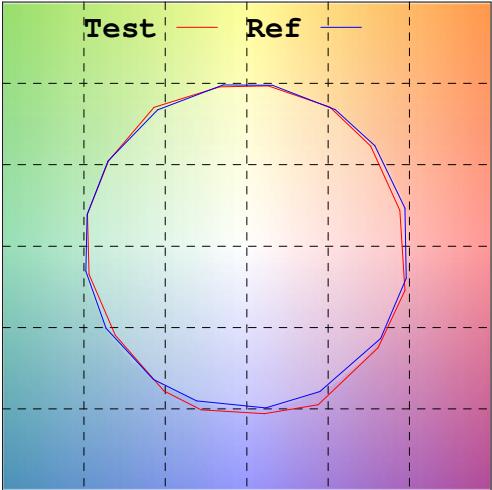
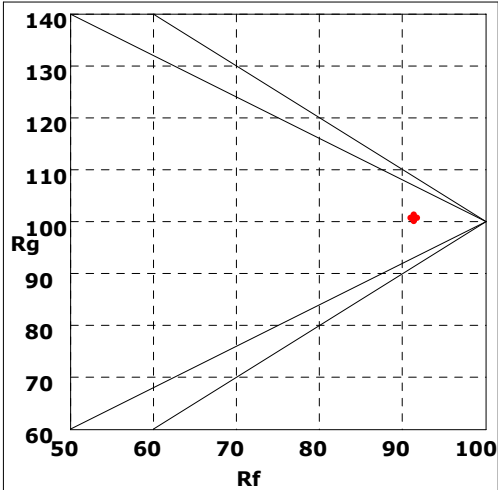
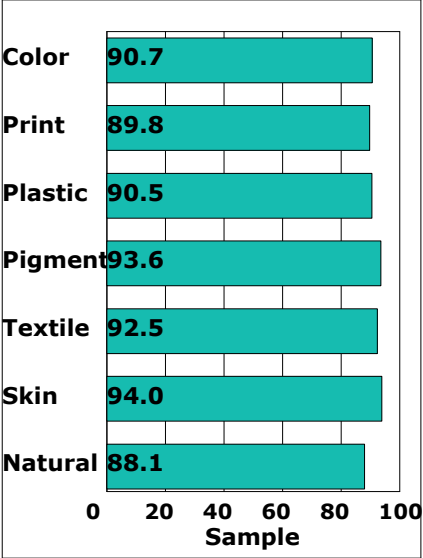
Electrical parameters:

Effic: 34.5 Lm/W	Energy: 37.6	Effi: G	
U: 219.6 V	I: 0.376 A	P: 49.340 W	Pf: 0.596

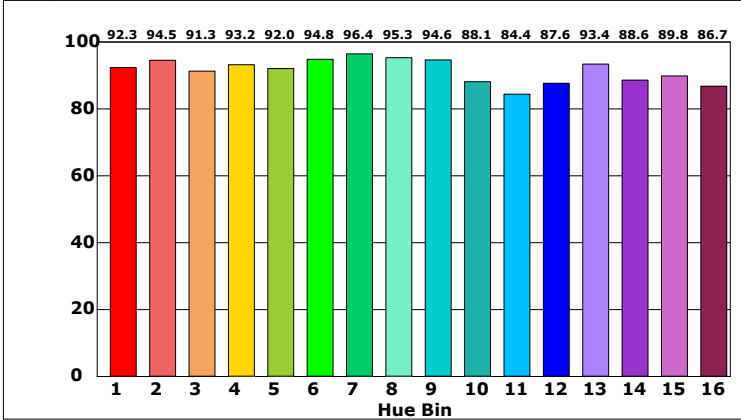
Rf: 91.3 CCT: 3672K u': 0.2314
Rg: 100.8 LER: 297.0 Duv: 0.00050 v': 0.5085



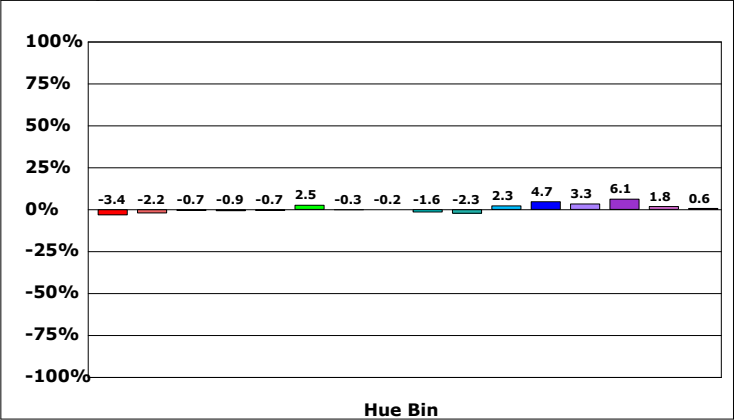
500			
Hue Bin	Rf	Chroma	Hue
1	92.3	-3.4%	-0.8%
2	94.5	-2.2%	1.3%
3	91.3	-0.7%	3.7%
4	93.2	-0.9%	2.3%
5	92.0	-0.7%	2.4%
6	94.8	2.5%	0.9%
7	96.4	-0.3%	-0.4%
8	95.3	-0.2%	-0.3%
9	94.6	-1.6%	2.2%
10	88.1	-2.3%	6.6%
11	84.4	2.3%	9.3%
12	87.6	4.7%	3.8%
13	93.4	3.3%	-1.4%
14	88.6	6.1%	-5.2%
15	89.8	1.8%	-5.7%
16	86.7	0.6%	-7.5%



Rf by Bue

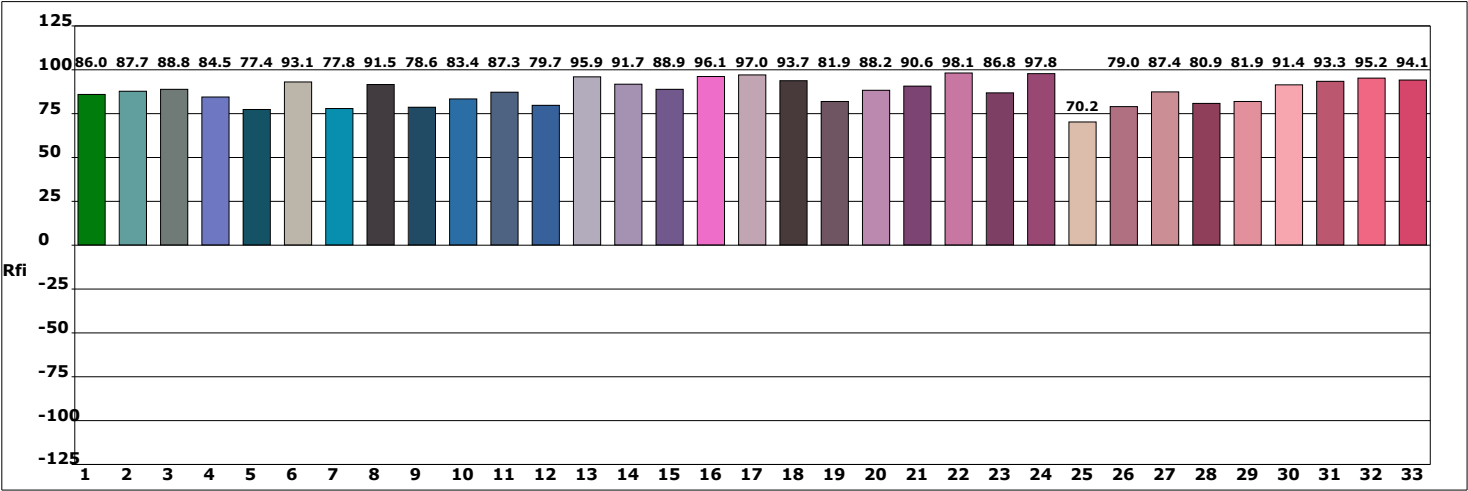
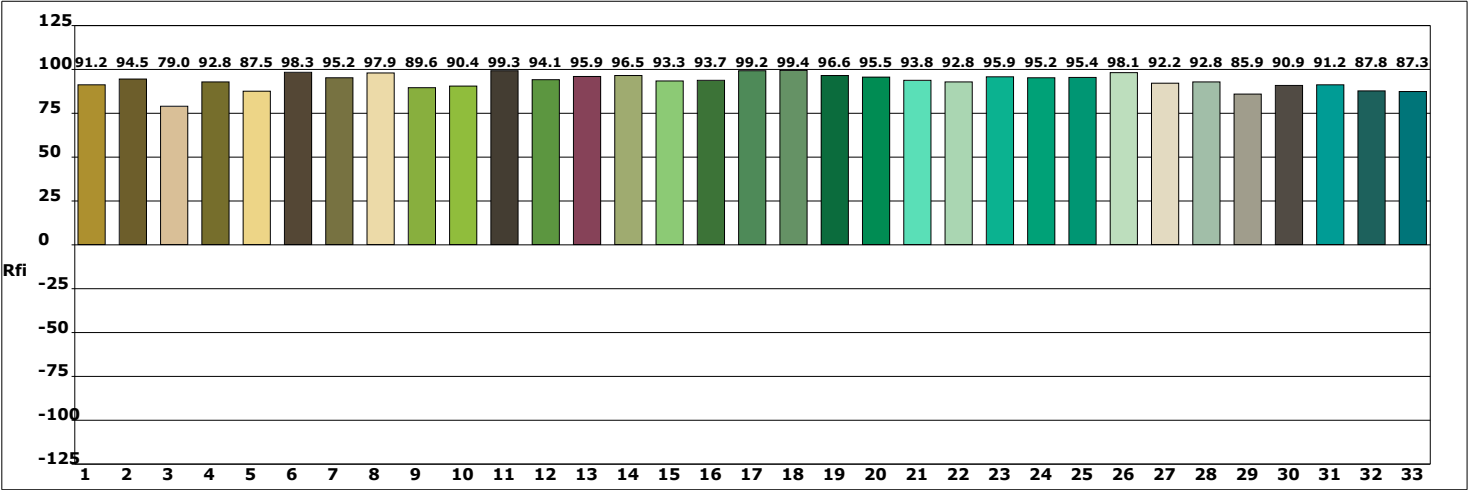
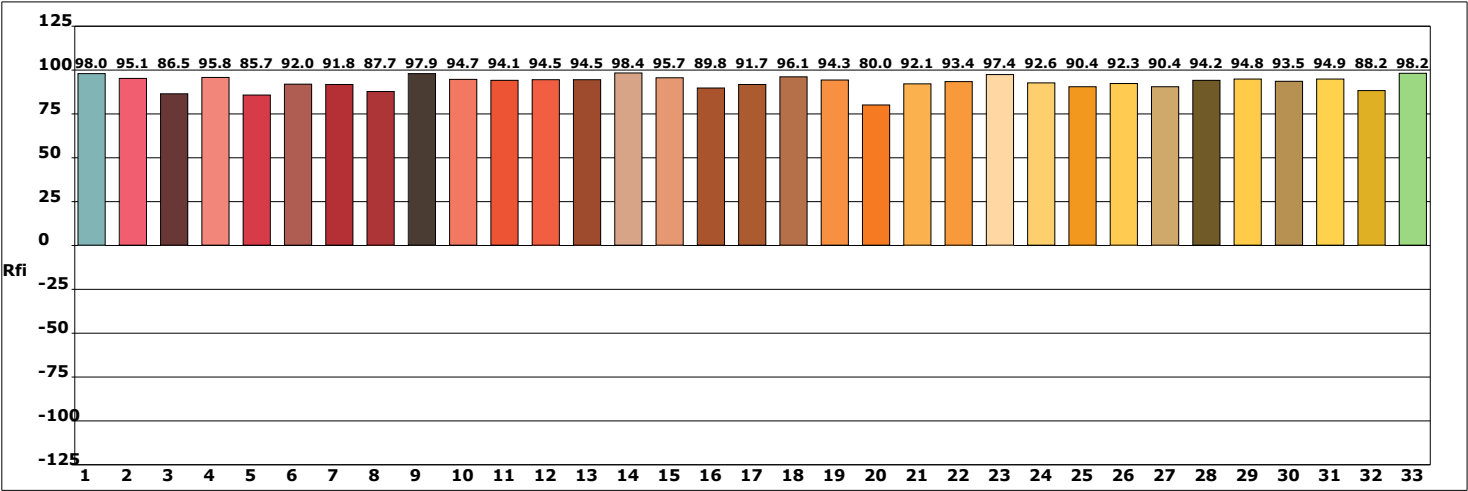


Chroma by Bue



Product model:
Product number:
Tester:
Remarks:

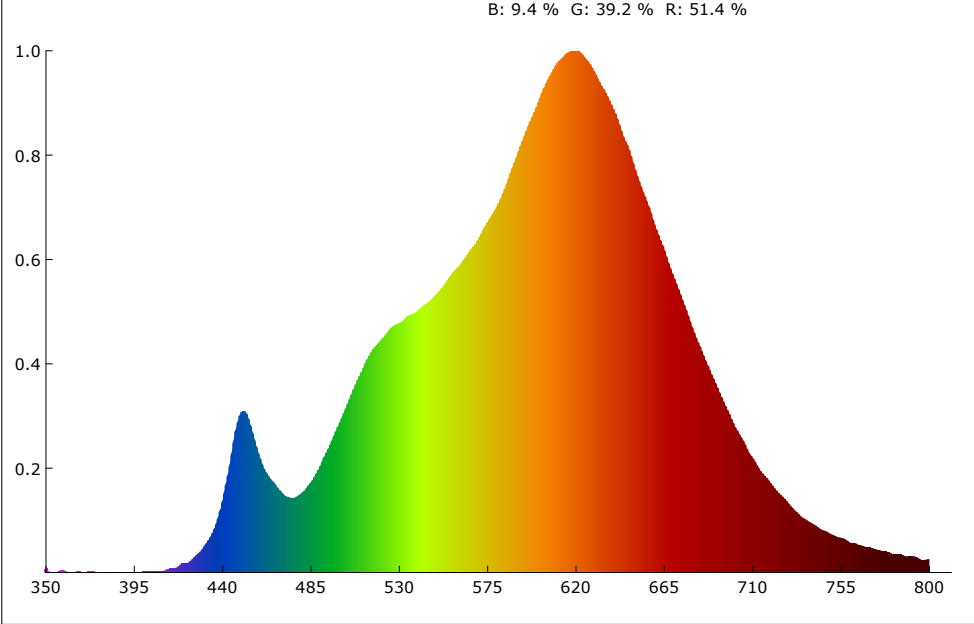
Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 04/30/14



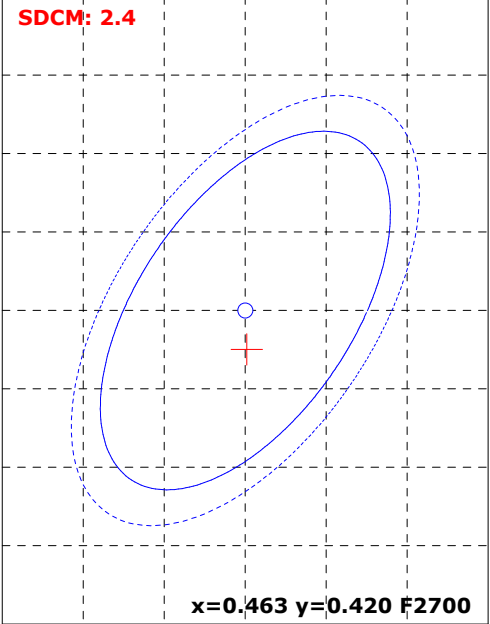
Product model:
Product number:
Tester:
Remarks:

Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 04/30/14

Spectrogram



SDCM



Color Parameter:

x: 0.4651 y: 0.4175 u: 0.2628 v: 0.3538 u': 0.2628 v': 0.5307
R_ratio: 51.4 % G_ratio: 39.2 % B_ratio: 9.4 % RedRatio: 25.8 % GreenRatio: 72.9 % BlueRatio: 1.3 %

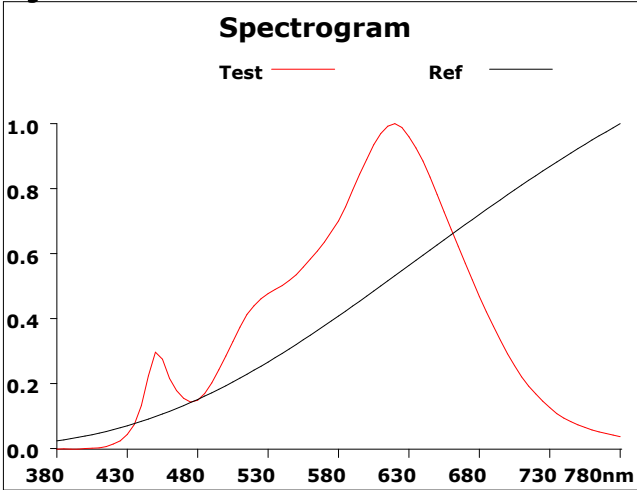
Ra: 92.5 AvgR: 89.3
R1: 92.5 R2: 95.4 R3: 98.1 R4: 94.6 R5: 92.9 R6: 97.0 R7: 91.2 R8: 78.4
R9: 51.5 R10: 89.2 R11: 96.9 R12: 84.4 R13: 93.3 R14: 97.9 R15: 86.3

CCT: 2680 K Flux: 1780.760 lm PeakWave: 619.6 nm SDCM: 2.4
S/P: 1.2 CentralWave: 608.5 nm DominantWave: 583.7 nm CentroidWave: 600.7 nm
HalfWidth: 134.8 nm duv: 0.00206 purity: 64.9 % CQS: 89.1
LER(TM-30): 290.6 Ep: 6128.8 mw Rg: 98.3 Rf: 91.7
Red Ep: 2941.3 mw Near red Ep: 378.2 mw Near infrared Ep: 26.5 mw

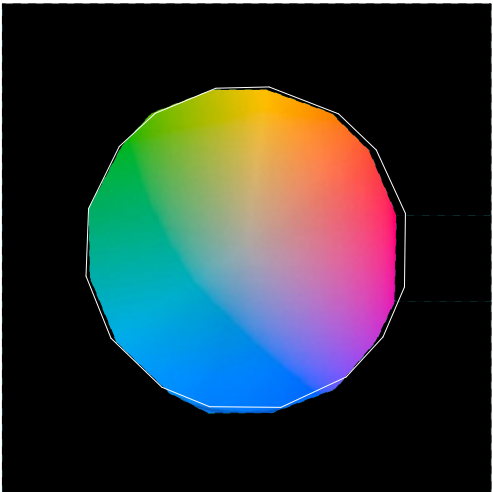
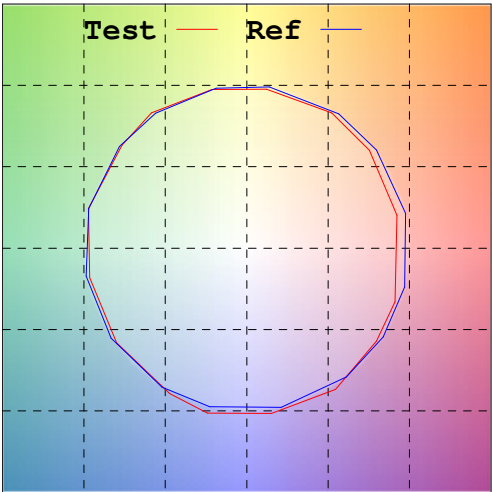
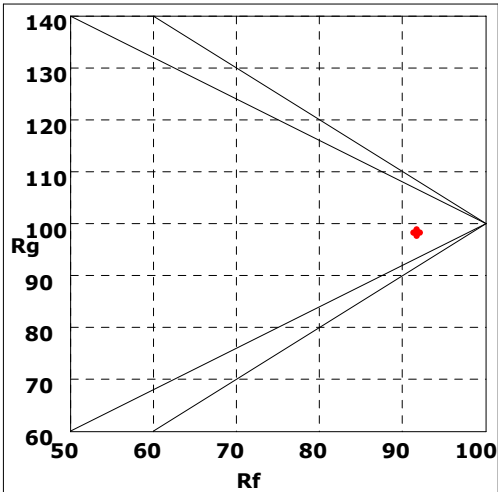
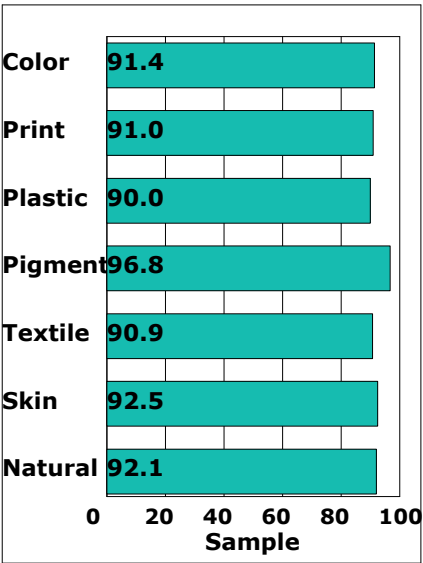
Electrical parameters:

Effic: 30.7 Lm/W Energy: 33.4 Effi: G
U: 219.7 V I: 0.436 A P: 58.050 W Pf: 0.606

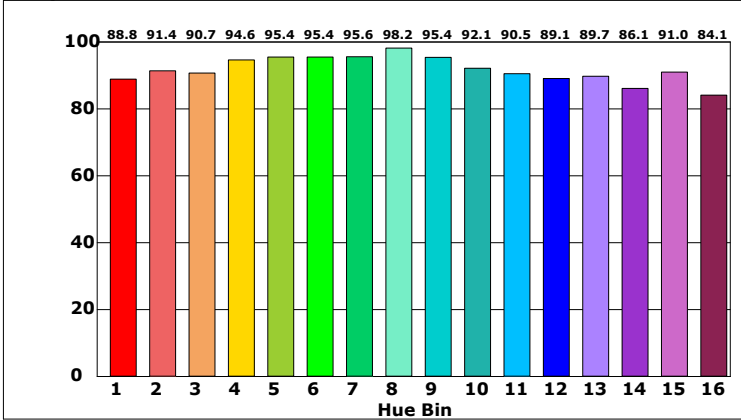
Rf: 91.7 CCT: 2680K u': 0.2628
Rg: 98.3 LER: 290.6 Duv: 0.00206 v': 0.5307



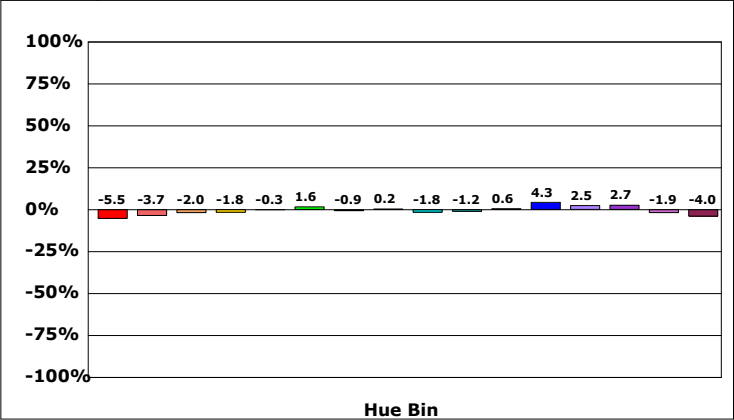
500			
Hue Bin	Rf	Chroma	Hue
1	88.8	-5.5%	-0.3%
2	91.4	-3.7%	2.2%
3	90.7	-2.0%	3.8%
4	94.6	-1.8%	1.4%
5	95.4	-0.3%	2.8%
6	95.4	1.6%	1.9%
7	95.6	-0.9%	-1.5%
8	98.2	0.2%	0.2%
9	95.4	-1.8%	1.2%
10	92.1	-1.2%	4.1%
11	90.5	0.6%	6.0%
12	89.1	4.3%	-0.7%
13	89.7	2.5%	-6.6%
14	86.1	2.7%	-9.8%
15	91.0	-1.9%	-4.3%
16	84.1	-4.0%	-10.1%



Rf by Bue

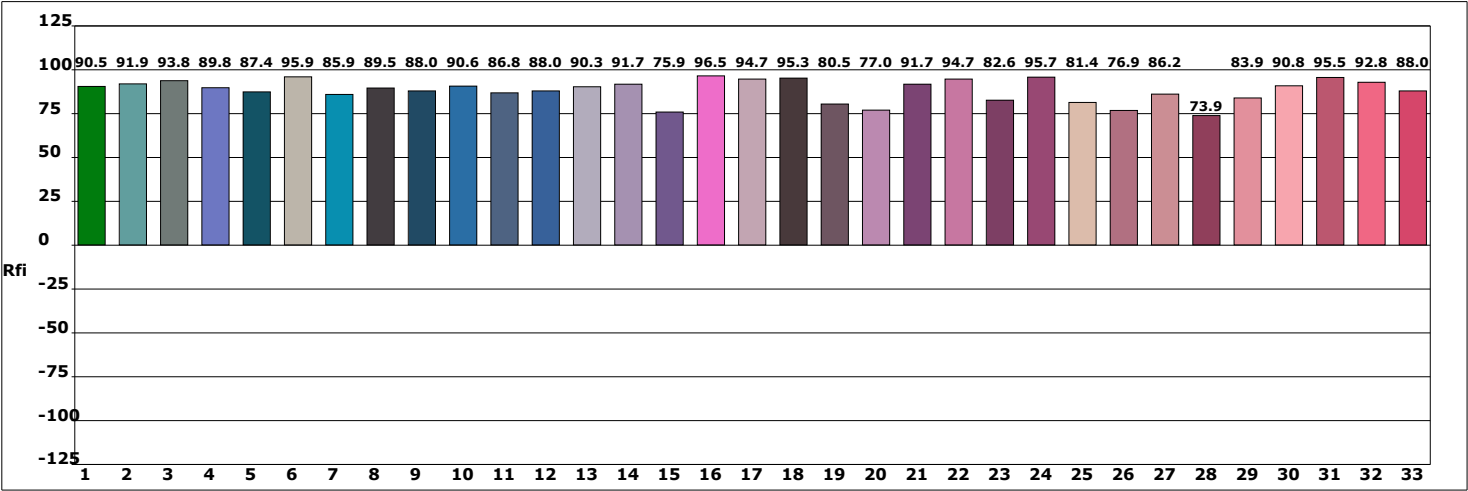
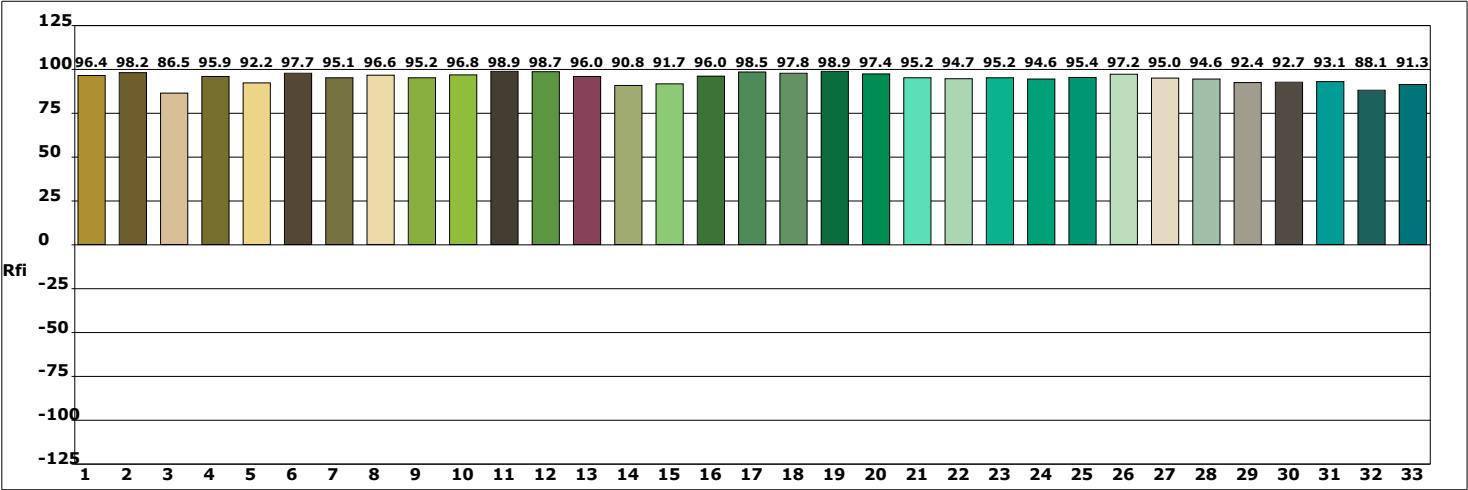
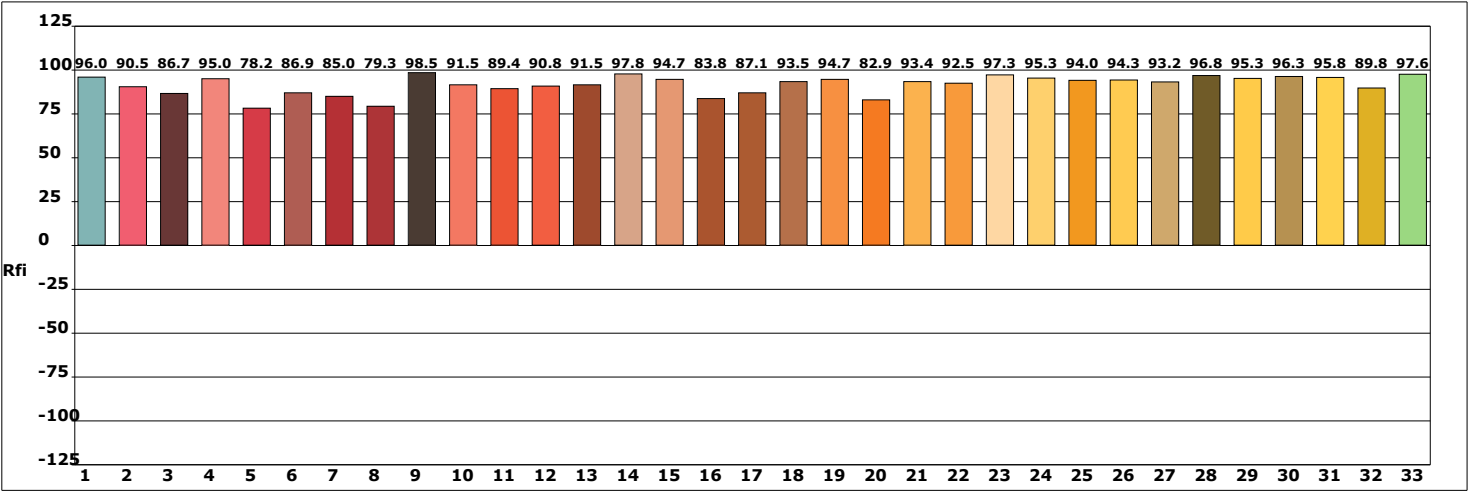


Chroma by Bue



Product model:
Product number:
Tester:
Remarks:

Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 04/30/14



Product model:
Product number:
Tester:
Remarks:

Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 04/30/14