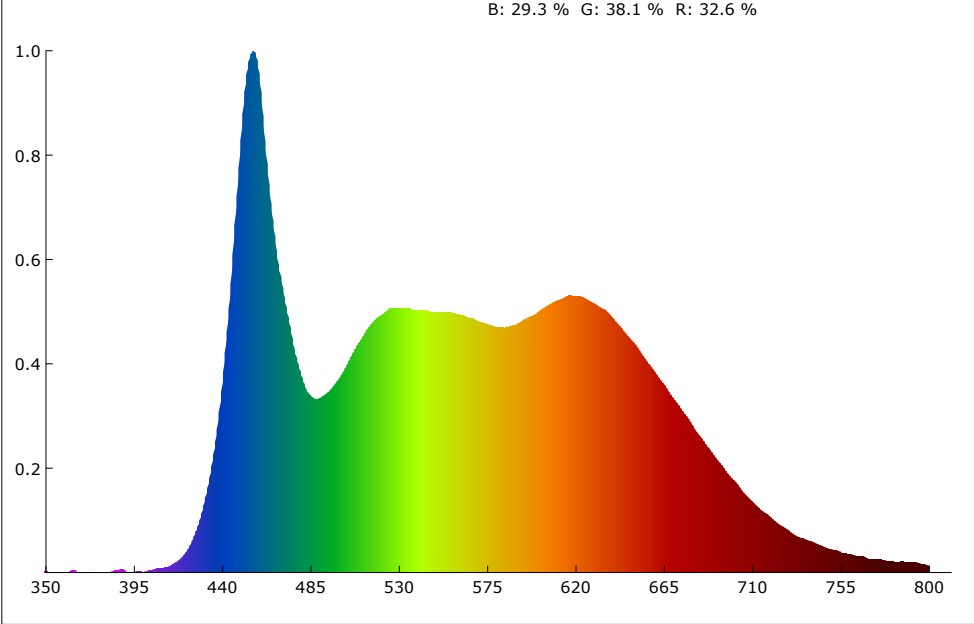
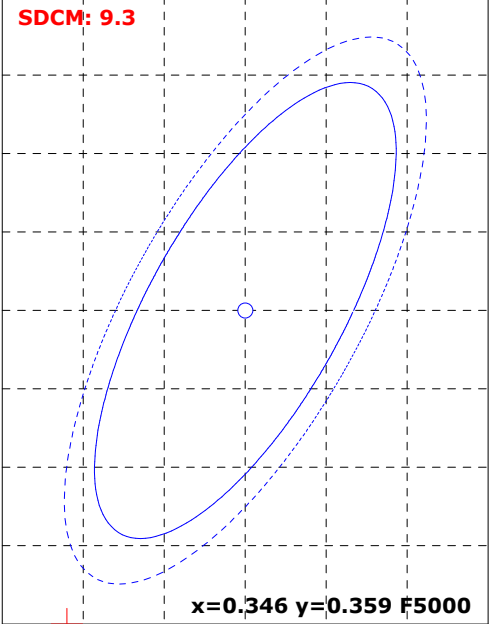


Spectrogram



SDCM



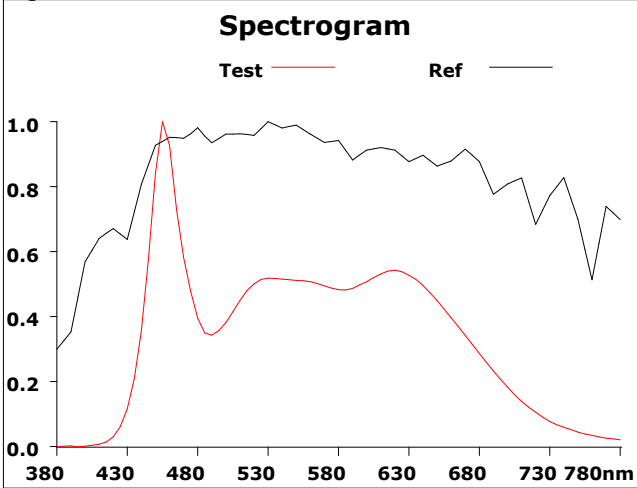
Color Parameter:

x: 0.3340	y: 0.3321	u: 0.2115	v: 0.3154	u': 0.2115	v': 0.4731
R_ratio: 32.6 %	G_ratio: 38.1 %	B_ratio: 29.3 %	RedRatio: 17.6 %	GreenRatio: 77.9 %	BlueRatio: 4.5 %
Ra: 95.5	AvgR: 93.6				
R1: 93.8	R2: 96.1	R3: 95.9	R4: 97.6	R5: 94.7	R6: 92.9
R7: 96.8	R8: 96.2	R9: 89.7	R10: 95.6	R11: 96.0	R12: 74.9
R13: 94.3	R14: 96.9	R15: 92.3			
CCT: 5424 K	Flux: 1948.712 lm	PeakWave: 456.4 nm	SDCM: 9.3		
S/P: 2.2	CentralWave: 458.6 nm	DominantWave: 0.0 nm	CentroidWave: 562.6 nm		
HalfWidth: 29.6 nm	duv: -0.00542	purity: 0.0 %	CQS: 87.5		
LER(TM-30): 268.2	Ep: 7266.6 mw	Rg: 101.0	Rf: 90.2		
Red Ep: 2255.7 mw	Near red Ep: 318.2 mw	Near infrared Ep: 23.0 mw			

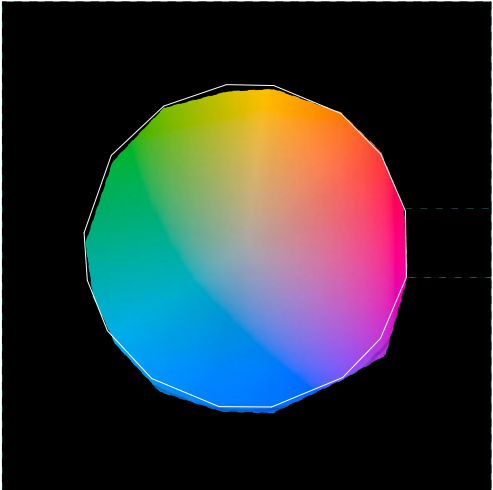
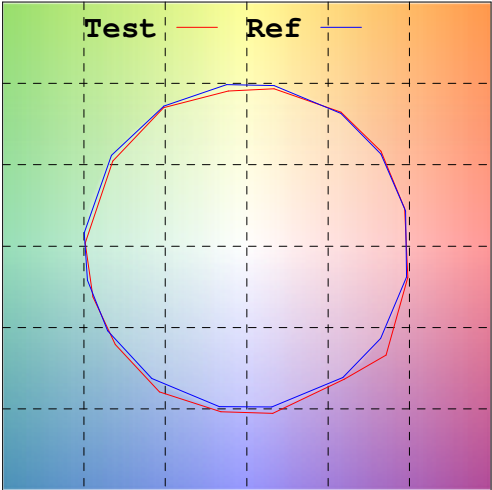
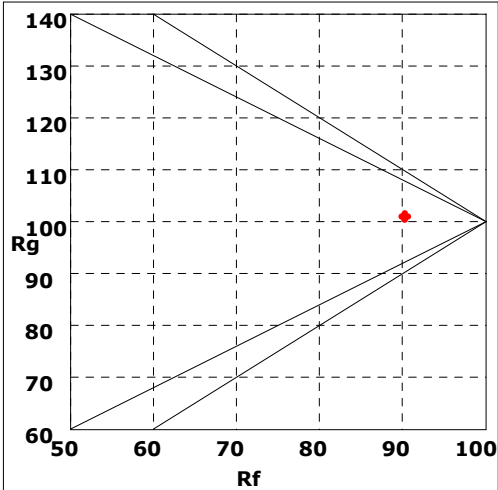
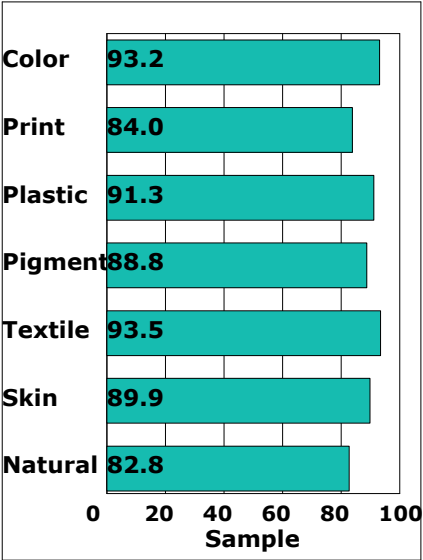
Electrical parameters:

Effic: 22.9 Lm/W	Energy: 24.9	Effi: G	
U: 219.5 V	I: 0.613 A	P: 85.090 W	Pf: 0.631

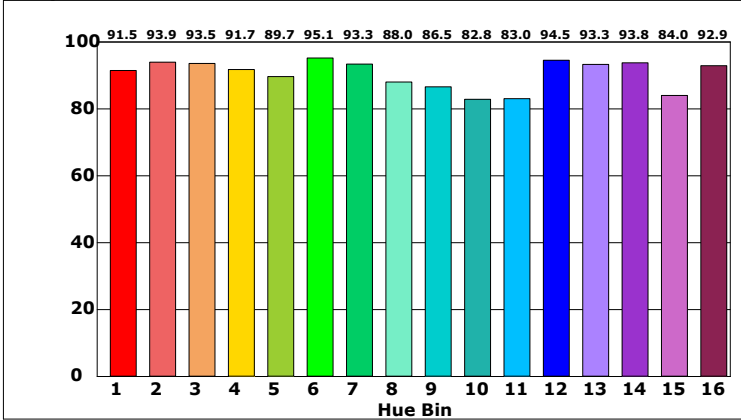
Rf: 90.2 CCT: 5424K u': 0.2115
Rg: 101.0 LER: 268.2 Duv: -0.00542 v': 0.4731



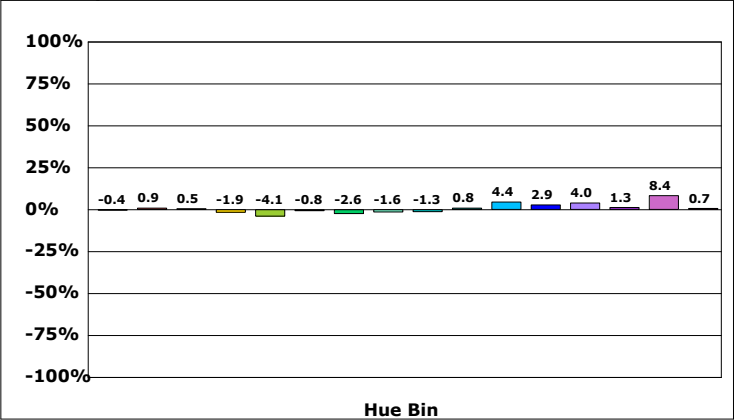
500			
Hue Bin	Rf	Chroma	Hue
1	91.5	-0.4%	1.7%
2	93.9	0.9%	1.5%
3	93.5	0.5%	0.5%
4	91.7	-1.9%	-0.4%
5	89.7	-4.1%	-0.1%
6	95.1	-0.8%	0.7%
7	93.3	-2.6%	2.5%
8	88.0	-1.6%	6.0%
9	86.5	-1.3%	10.7%
10	82.8	0.8%	9.6%
11	83.0	4.4%	8.5%
12	94.5	2.9%	1.5%
13	93.3	4.0%	-0.2%
14	93.8	1.3%	0.3%
15	84.0	8.4%	-6.6%
16	92.9	0.7%	-0.0%



Rf by Bue

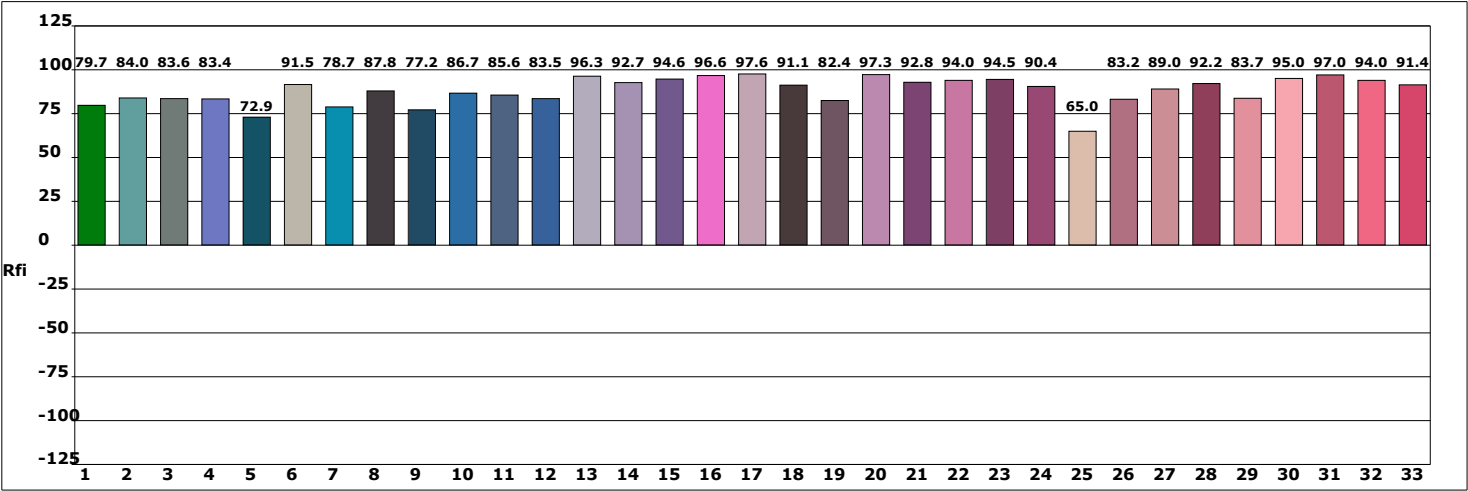
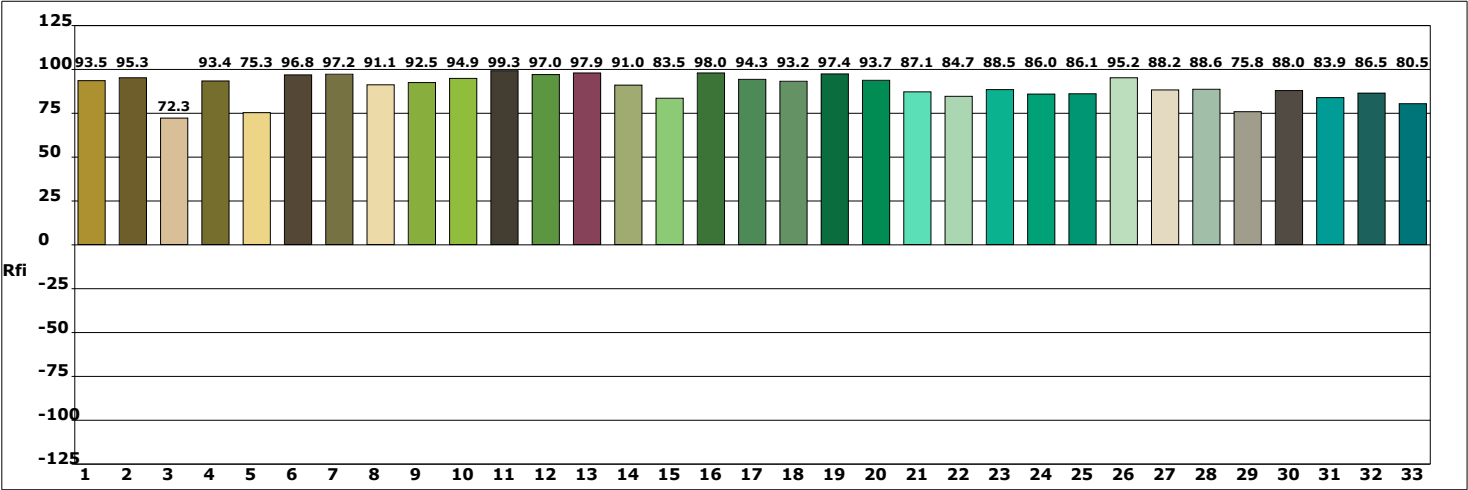
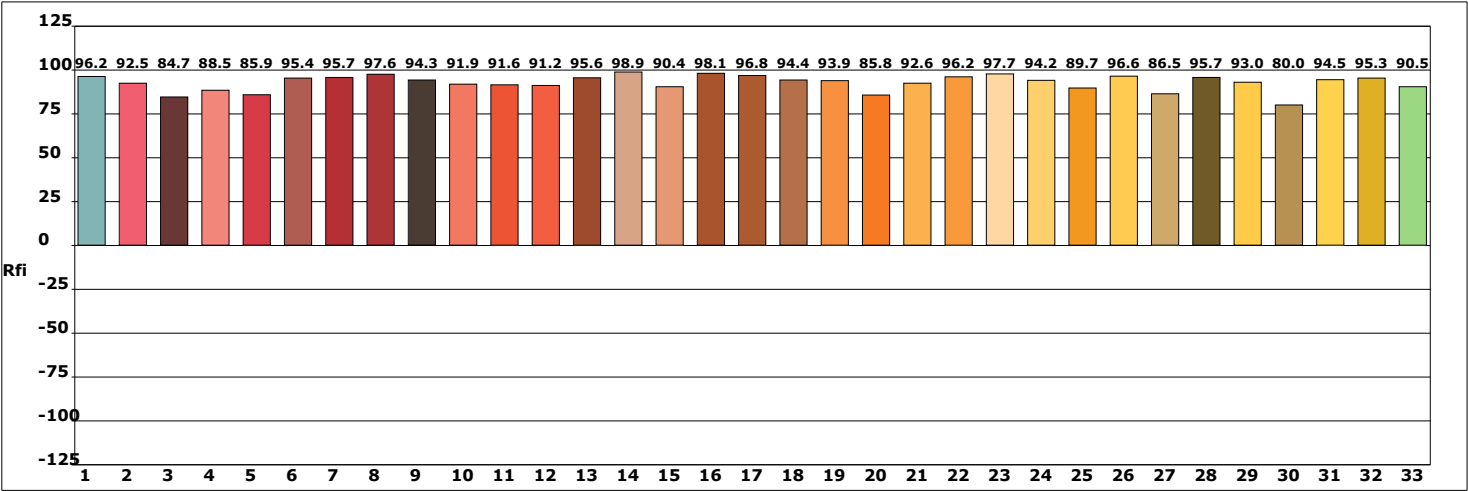


Chroma by Bue



Product model:
Product number:
Tester:
Remarks:

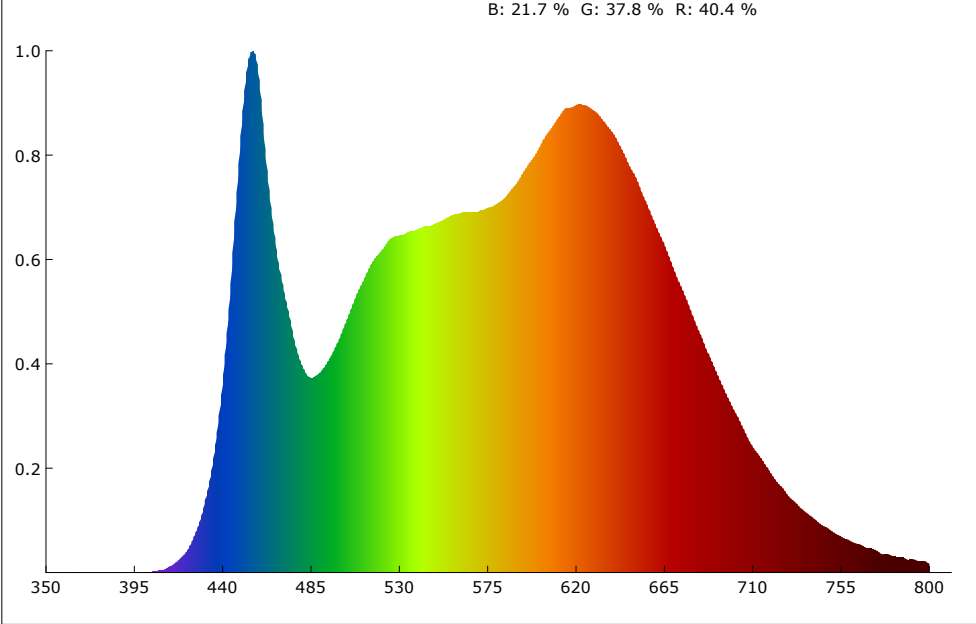
Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 04/30/14



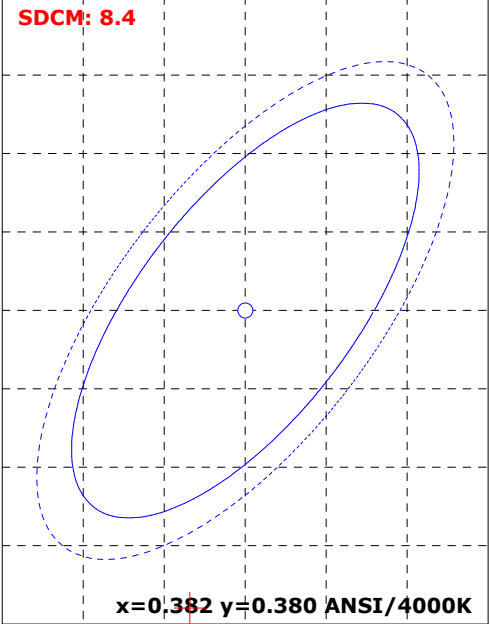
Product model:
Product number:
Tester:
Remarks:

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

Spectrogram



SDCM



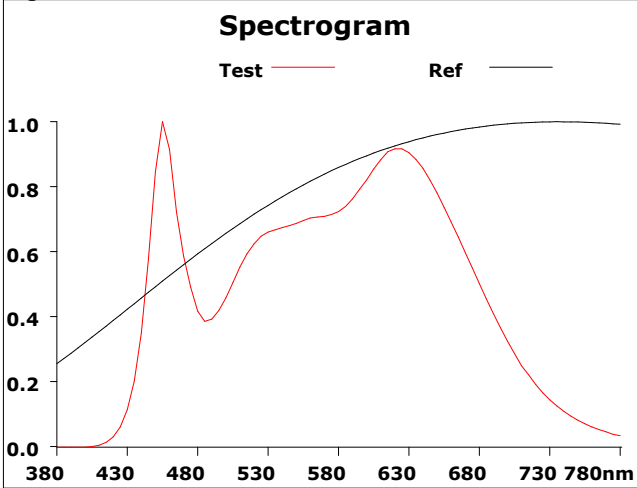
Color Parameter:

x: 0.3784	y: 0.3607	u: 0.2303	v: 0.3293	u': 0.2303	v': 0.4939
R_ratio: 40.4 %	G_ratio: 37.8 %	B_ratio: 21.7 %	RedRatio: 20.9 %	GreenRatio: 75.7 %	BlueRatio: 3.3 %
Ra: 96.4		AvgR: 95.0			
R1: 95.2	R2: 96.3	R3: 97.5	R4: 98.7	R5: 96.3	R6: 93.7
					R7: 96.3
					R8: 97.4
R9: 96.8	R10: 95.8	R11: 96.2	R12: 77.6	R13: 95.1	R14: 97.8
					R15: 94.9
CCT: 3932 K		Flux: 1869.883 lm	PeakWave: 455.4 nm	SDCM: 8.4	
S/P: 1.8		CentralWave: 458.8 nm	DominantWave: 584.3 nm	CentroidWave: 579.1 nm	
HalfWidth: 30.2 nm		duv: -0.00713	purity: 21.8 %	CQS: 86.2	
LER(TM-30): 271.3		Ep: 6892.1 mw	Rg: 101.3	Rf: 91.2	
Red Ep: 2624.2 mw		Near red Ep: 384.6 mw	Near infrared Ep: 20.8 mw		

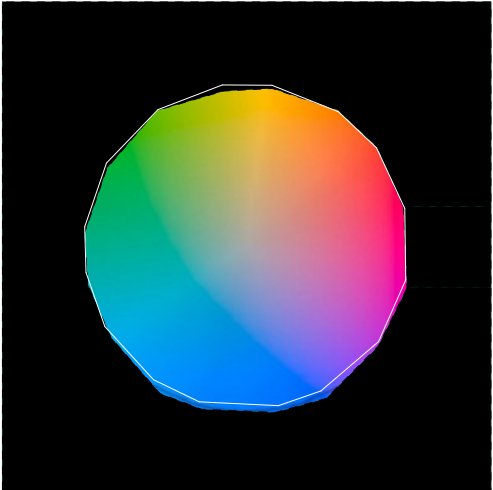
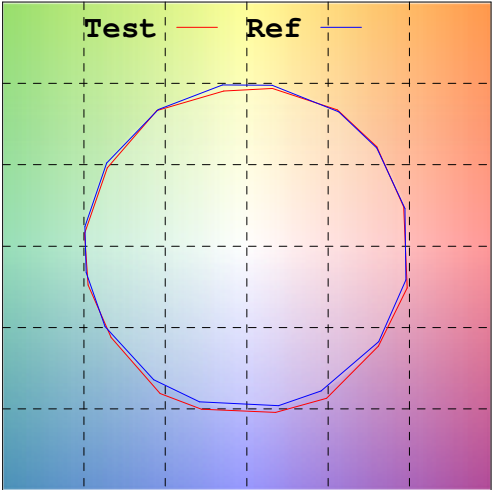
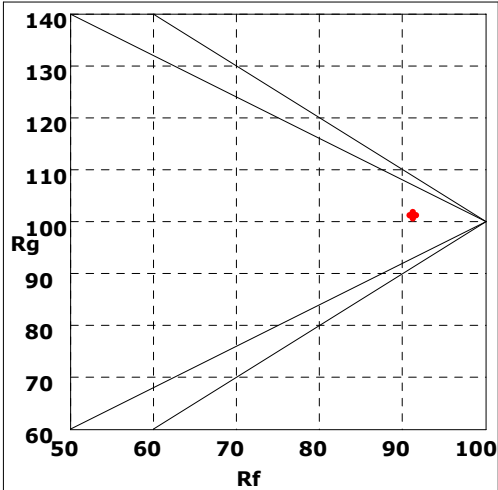
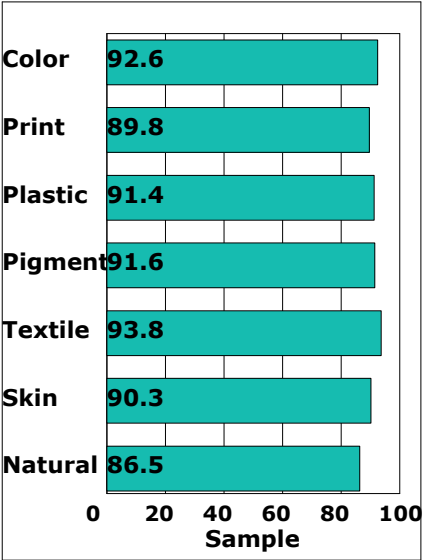
Electrical parameters:

Effic: 21.3 Lm/W	Energy: 23.2	Effi: G	
U: 219.5 V	I: 0.631 A	P: 87.850 W	Pf: 0.634

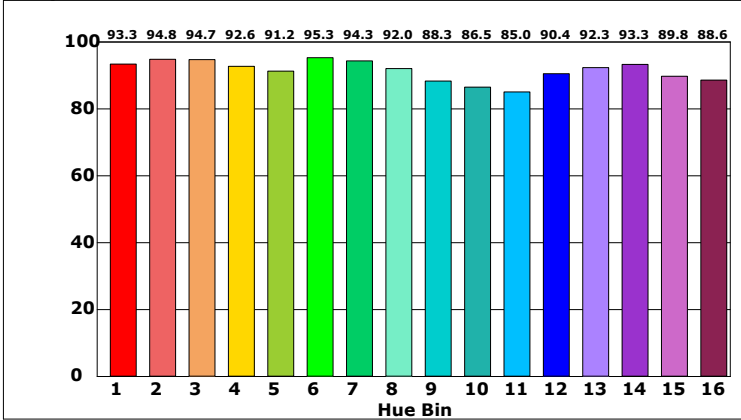
Rf: 91.2 CCT: 3932K u': 0.2303
Rg: 101.3 LER: 271.3 Duv: -0.00713 v': 0.4939



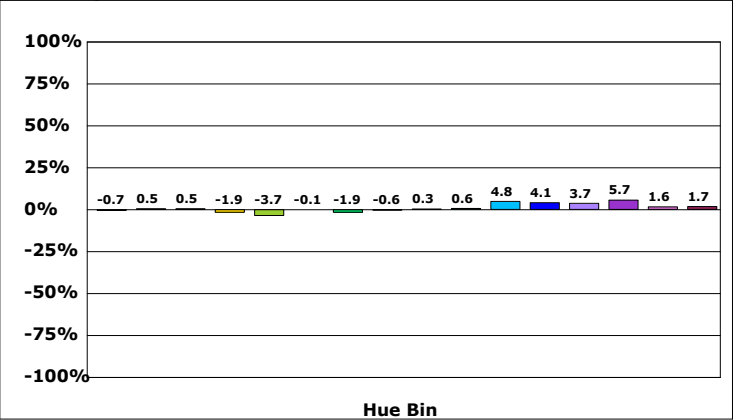
500			
Hue Bin	Rf	Chroma	Hue
1	93.3	-0.7%	1.1%
2	94.8	0.5%	0.7%
3	94.7	0.5%	1.3%
4	92.6	-1.9%	-0.6%
5	91.2	-3.7%	-0.0%
6	95.3	-0.1%	1.0%
7	94.3	-1.9%	2.1%
8	92.0	-0.6%	4.3%
9	88.3	0.3%	7.8%
10	86.5	0.6%	7.6%
11	85.0	4.8%	7.9%
12	90.4	4.1%	1.9%
13	92.3	3.7%	-2.6%
14	93.3	5.7%	0.2%
15	89.8	1.6%	-2.4%
16	88.6	1.7%	-4.7%



Rf by Bue

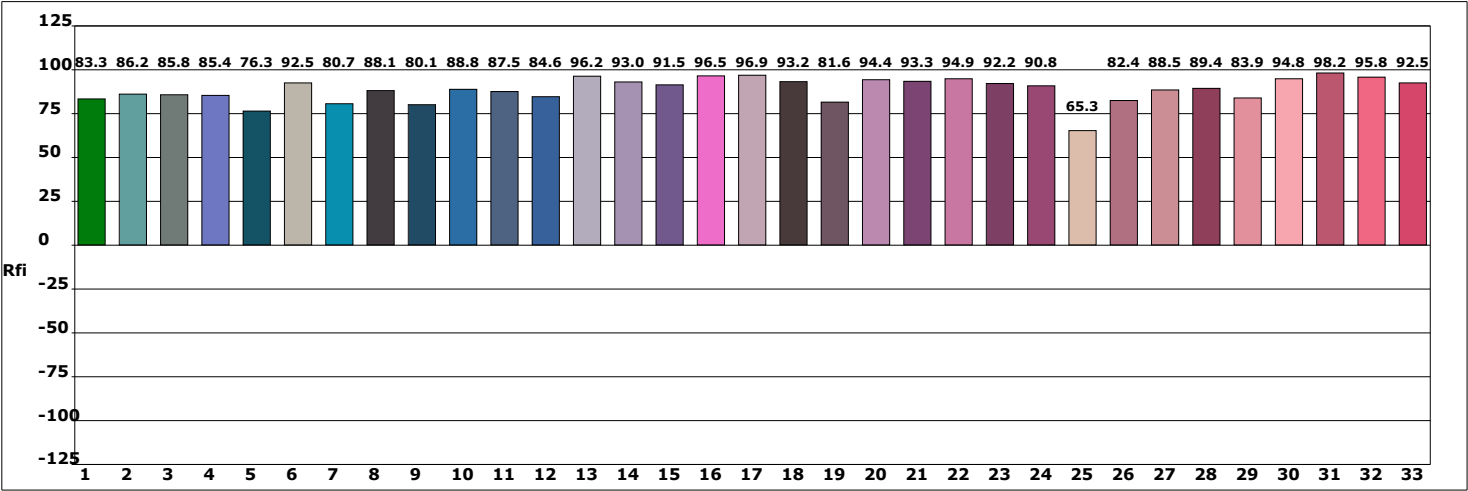
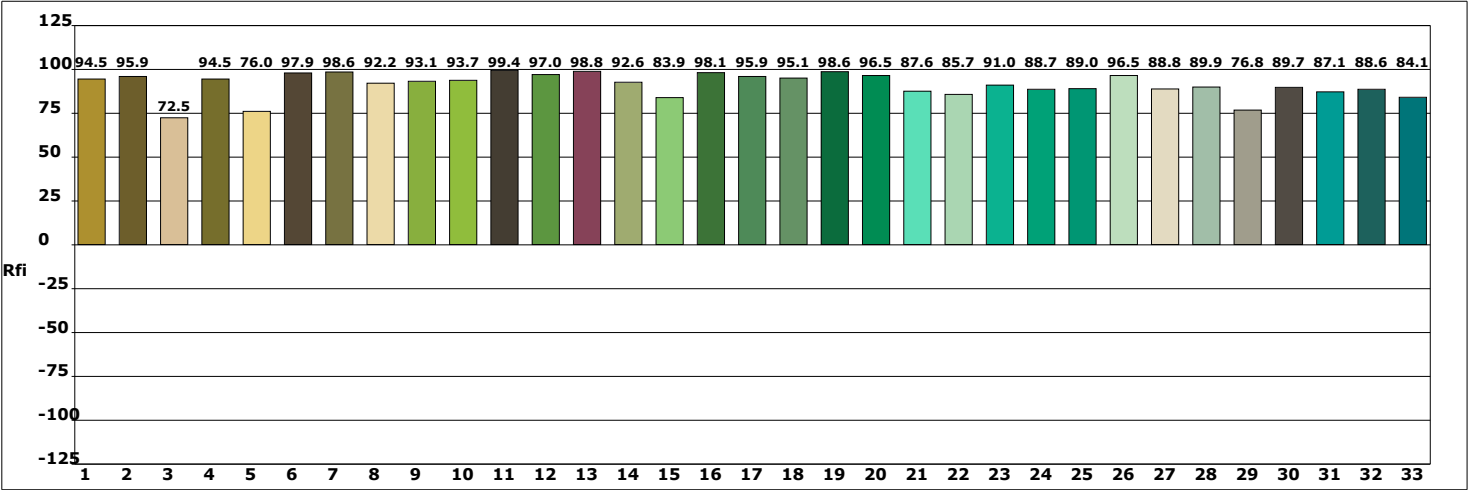
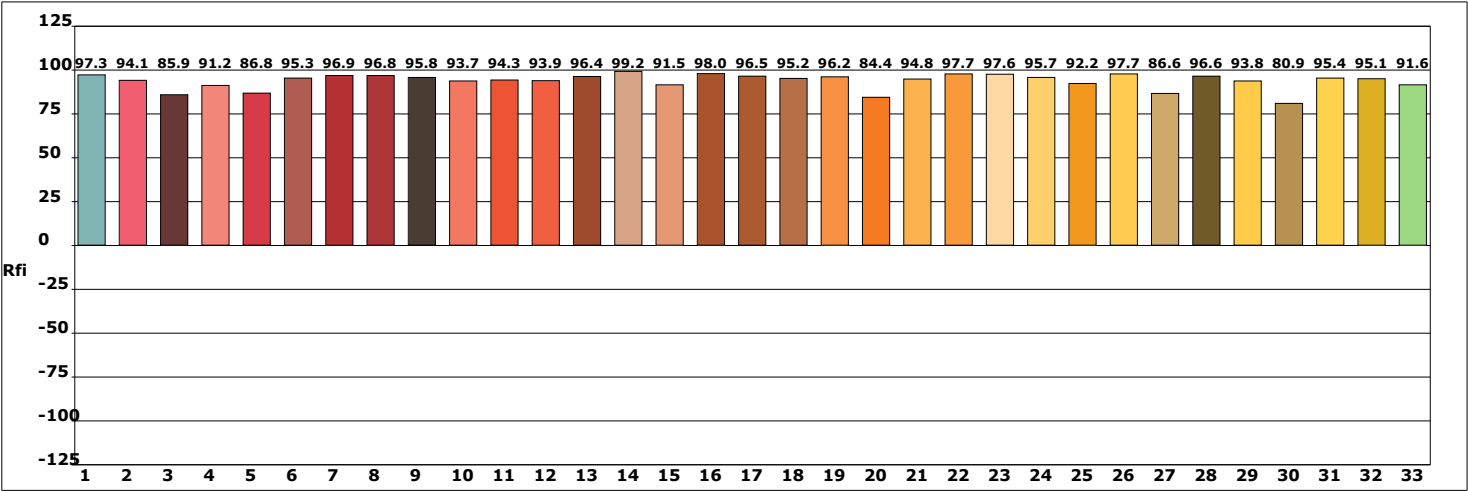


Chroma by Bue



Product model:
Product number:
Tester:
Remarks:

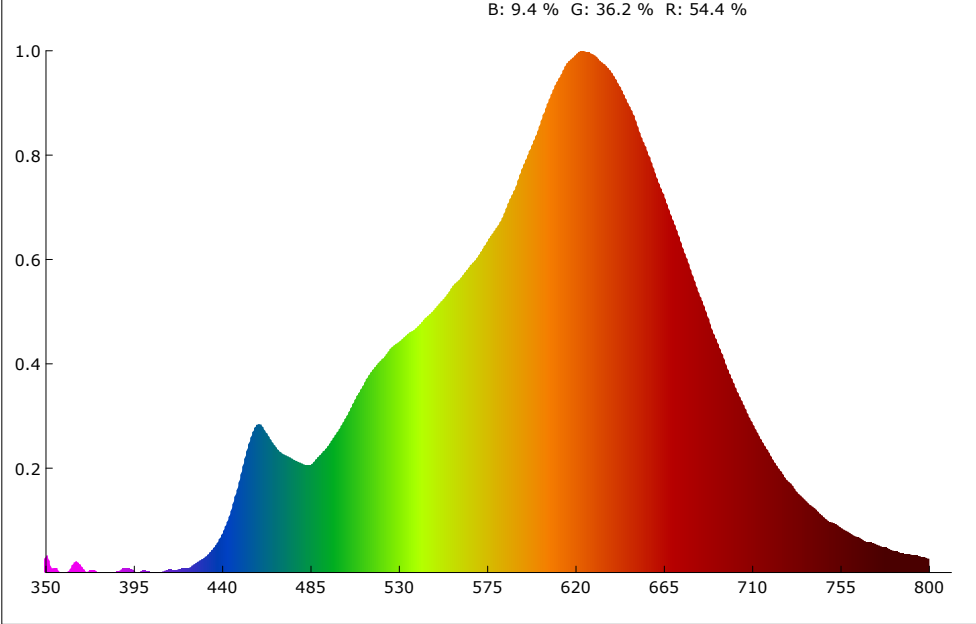
Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 04/30/14



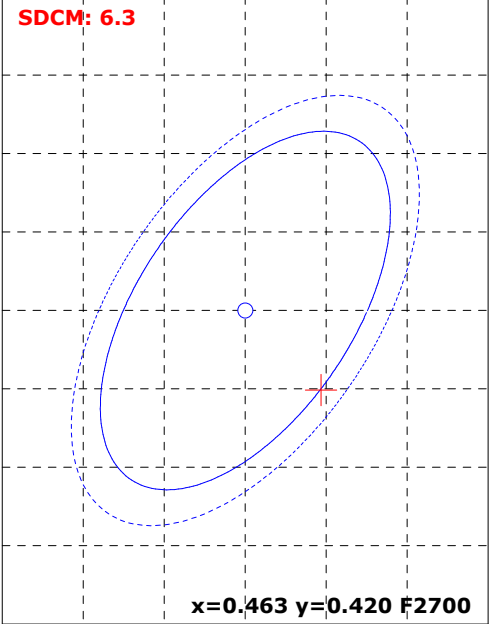
Product model:
Product number:
Tester:
Remarks:

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

Spectrogram



SDCM



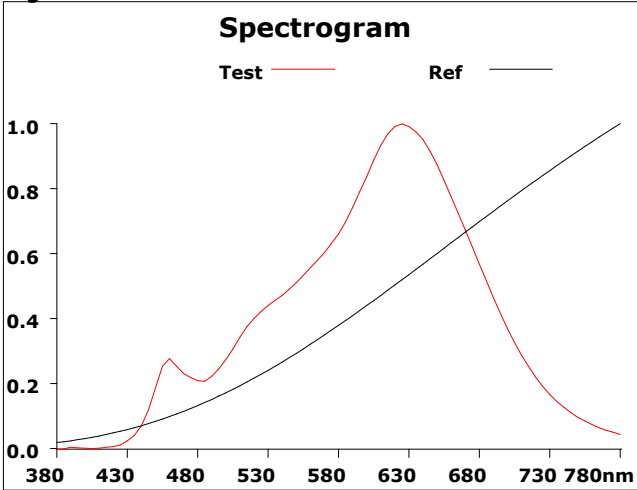
Color Parameter:

x: 0.4697	y: 0.4149	u: 0.2669	v: 0.3536	u': 0.2669	v': 0.5304
R_ratio: 54.4 %	G_ratio: 36.2 %	B_ratio: 9.4 %	RedRatio: 27.0 %	GreenRatio: 71.4 %	BlueRatio: 1.6 %
Ra: 95.4	AvgR: 93.8				
R1: 96.9	R2: 99.3	R3: 99.4	R4: 96.5	R5: 97.1	R6: 96.8
R7: 92.3	R8: 85.4				
R9: 69.7	R10: 97.3	R11: 99.1	R12: 87.5	R13: 97.9	R14: 98.9
R15: 92.2					
CCT: 2600 K	Flux: 1695.211 lm	PeakWave: 623.6 nm	SDCM: 6.3		
S/P: 1.3	CentralWave: 616.6 nm	DominantWave: 584.5 nm	CentroidWave: 606.4 nm		
HalfWidth: 138.3 nm	duv: 0.00079	purity: 65.5 %	CQS: 85.8		
LER(TM-30): 269.7	Ep: 6285.4 mw	Rg: 96.9	Rf: 90.8		
Red Ep: 3133.2 mw	Near red Ep: 485.6 mw	Near infrared Ep: 29.7 mw			

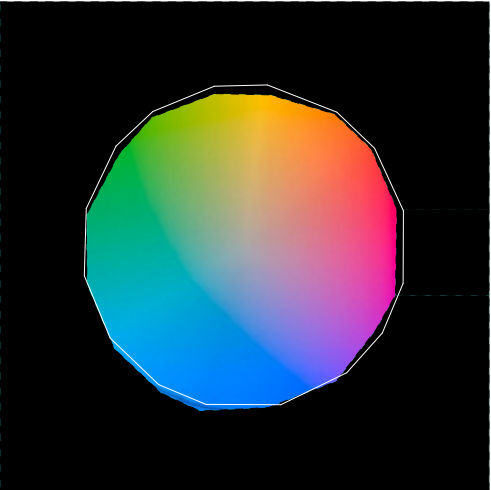
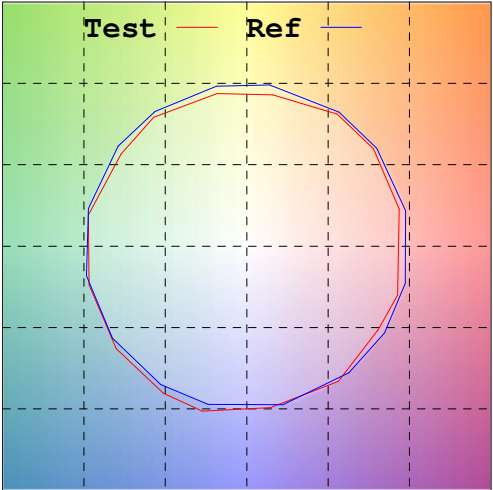
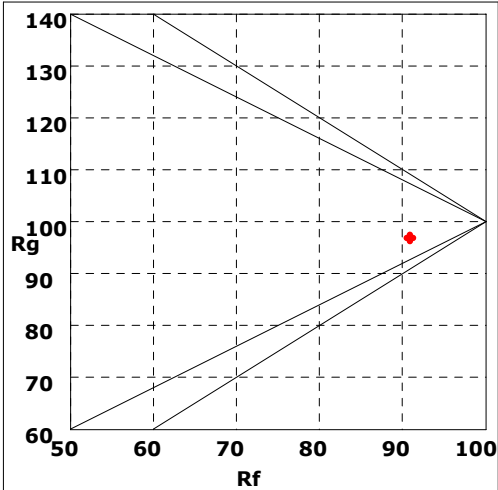
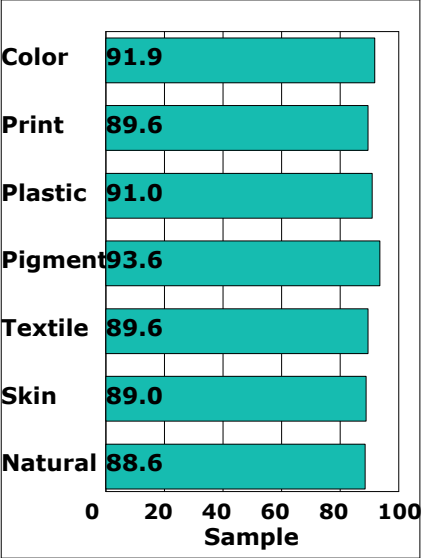
Electrical parameters:

Effic: 18.4 Lm/W	Energy: 20.1	Effi: G	
U: 219.6 V	I: 0.656 A	P: 91.980 W	Pf: 0.638

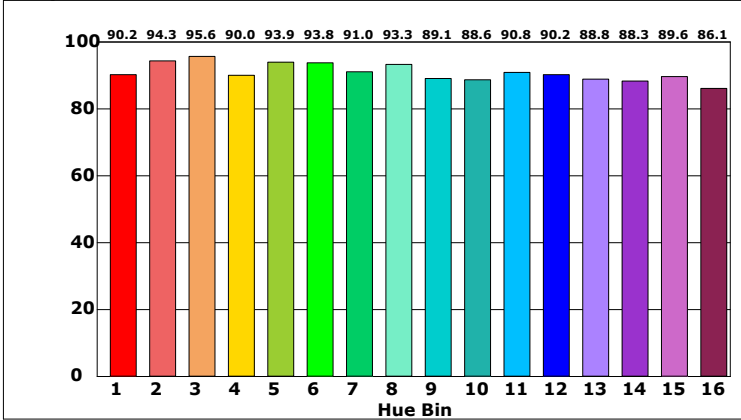
Rf: 90.8 CCT: 2600K u': 0.2669
Rg: 96.9 LER: 269.7 Duv: 0.00079 v': 0.5304



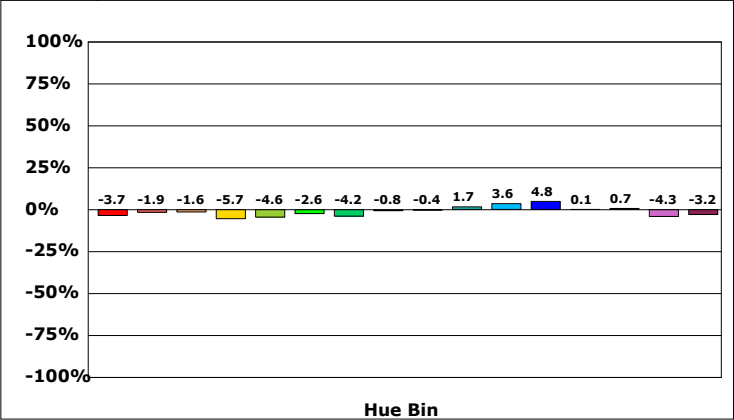
500			
Hue Bin	Rf	Chroma	Hue
1	90.2	-3.7%	1.7%
2	94.3	-1.9%	0.9%
3	95.6	-1.6%	0.4%
4	90.0	-5.7%	-3.1%
5	93.9	-4.6%	0.5%
6	93.8	-2.6%	2.7%
7	91.0	-4.2%	3.0%
8	93.3	-0.8%	3.9%
9	89.1	-0.4%	5.9%
10	88.6	1.7%	6.7%
11	90.8	3.6%	4.3%
12	90.2	4.8%	-2.6%
13	88.8	0.1%	-7.9%
14	88.3	0.7%	-8.4%
15	89.6	-4.3%	-0.6%
16	86.1	-3.2%	-8.1%



Rf by Bue

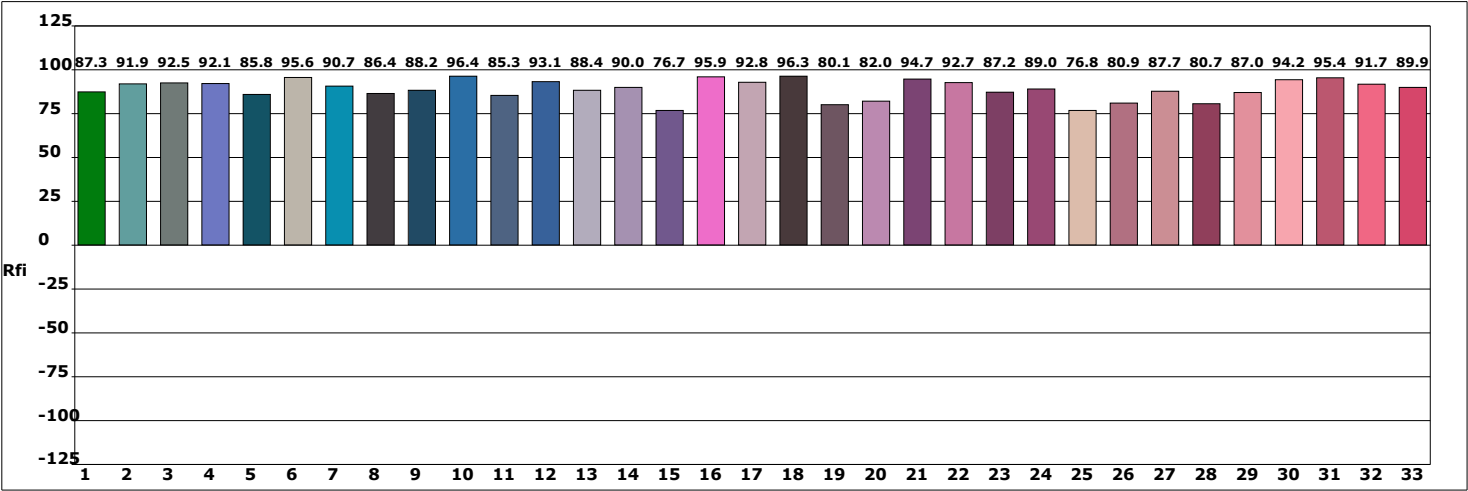
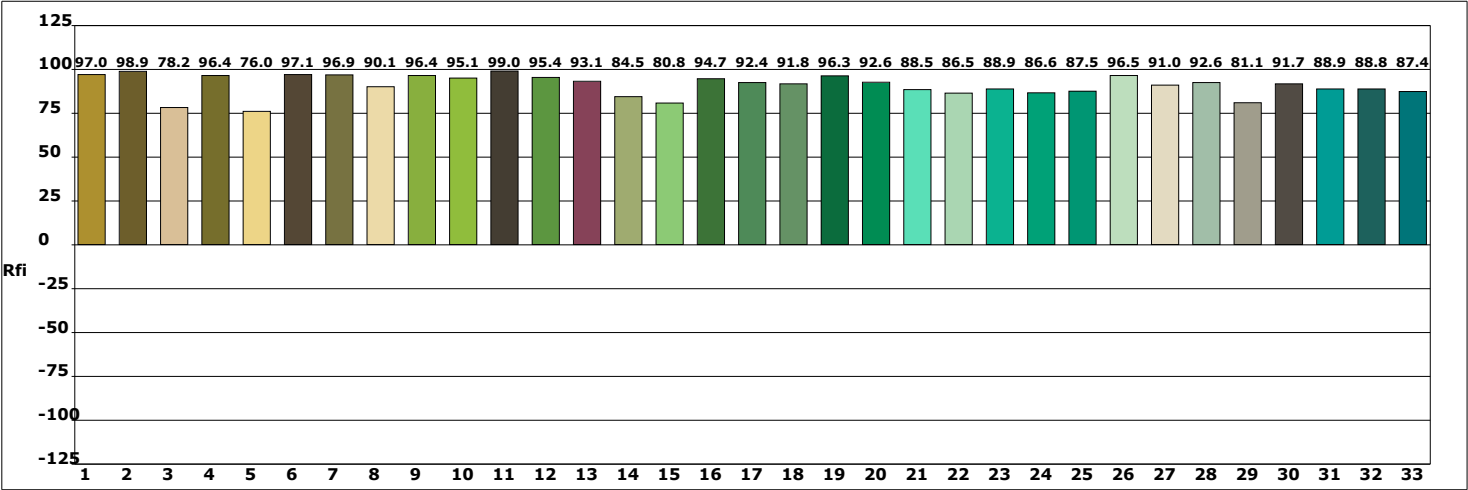
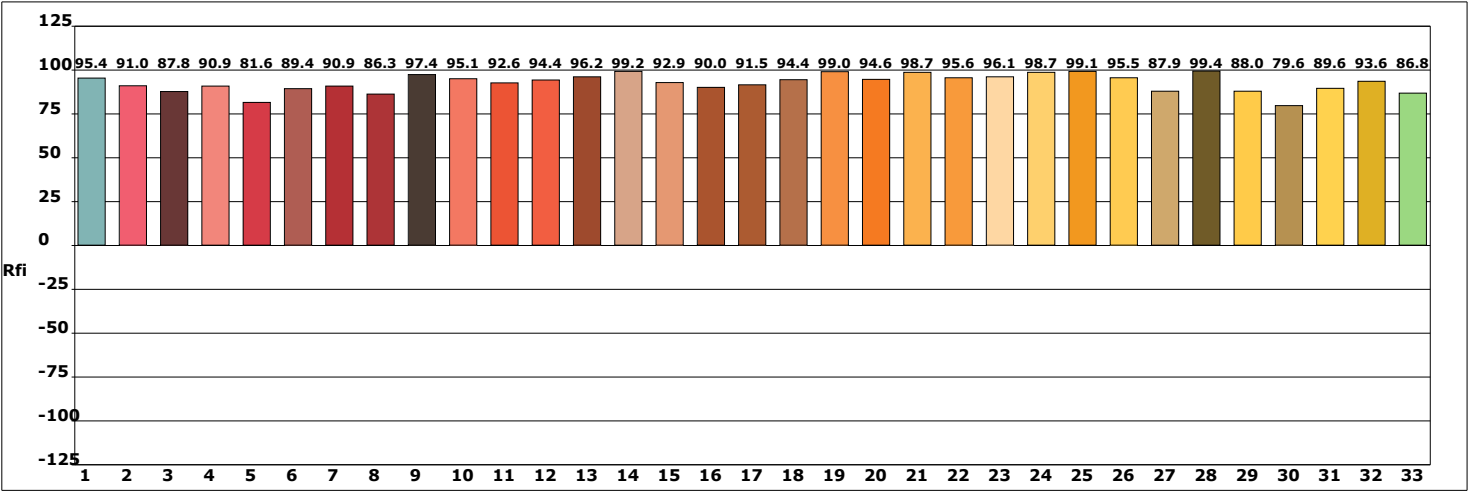


Chroma by Bue



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