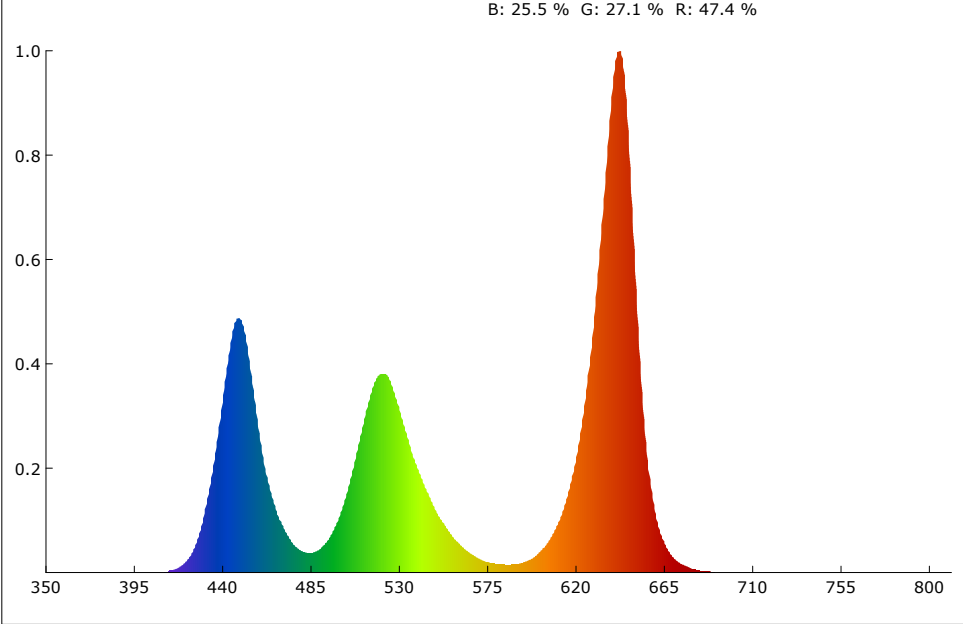
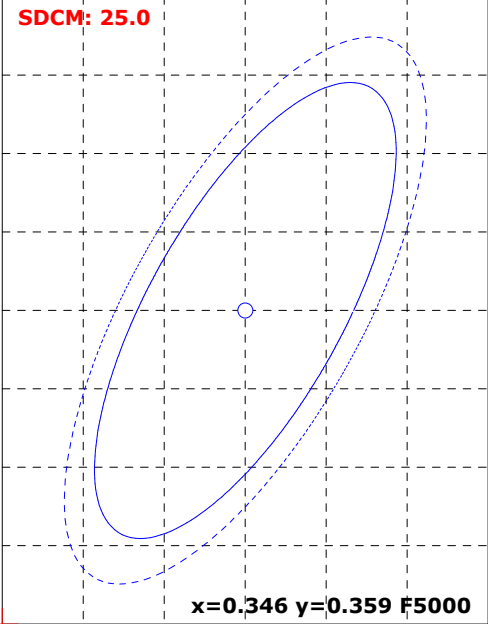


Spectrogram



SDCM



Color Parameter:

x: 0.3262 y: 0.2903 u: 0.2238 v: 0.2987 u': 0.2238 v': 0.4481
R_ratio: 47.4 % G_ratio: 27.1 % B_ratio: 25.5 % RedRatio: 29.6 % GreenRatio: 66.8 % BlueRatio: 3.6 %

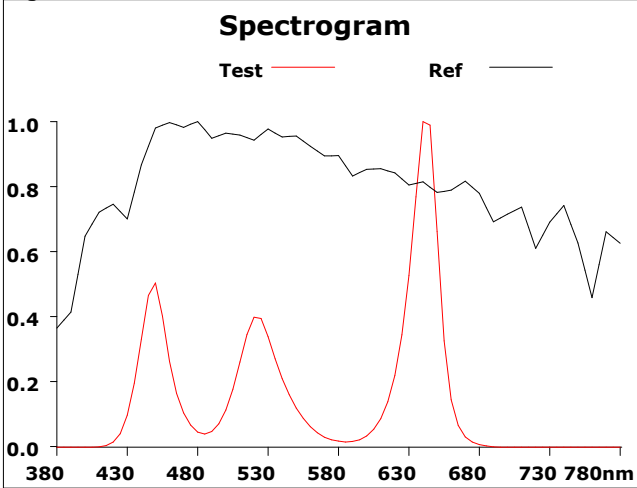
Ra: 5.2 AvgR: -1.0
R1: -12.9 R2: 61.8 R3: 37.0 R4: -30.1 R5: 1.5 R6: 57.7 R7: 21.9 R8: -94.6
R9: -99.0 R10: 21.3 R11: -54.3 R12: 55.6 R13: 3.9 R14: 58.9 R15: -43.8

CCT: 5910 K Flux: 236.805 lm PeakWave: 642.3 nm SDCM: 25.0
S/P: 2.6 CentralWave: 640.9 nm DominantWave: 0.0 nm CentroidWave: 562.0 nm
HalfWidth: 21.2 nm duv: -0.02565 purity: 0.0 % CQS: 71.4
LER(TM-30): 215.6 Ep: 1098.2 mw Rg: 139.7 Rf: 43.1
Red Ep: 520.7 mw Near red Ep: 0.0 mw Near infrared Ep: 0.0 mw

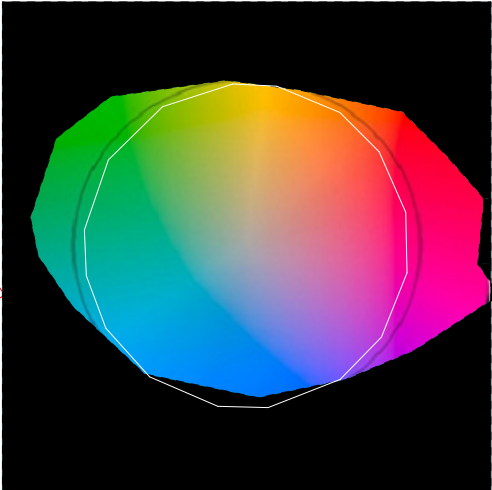
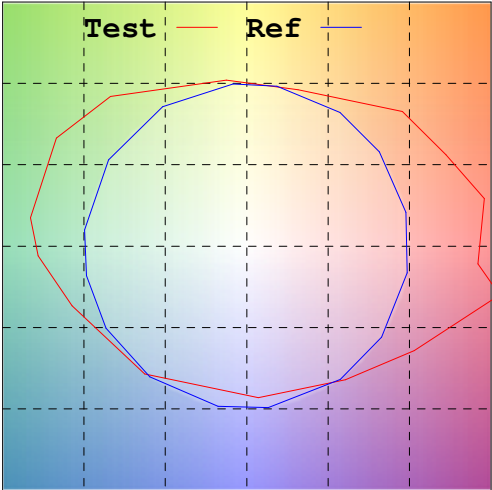
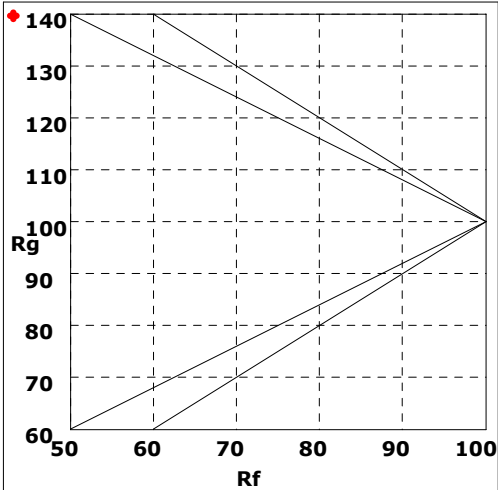
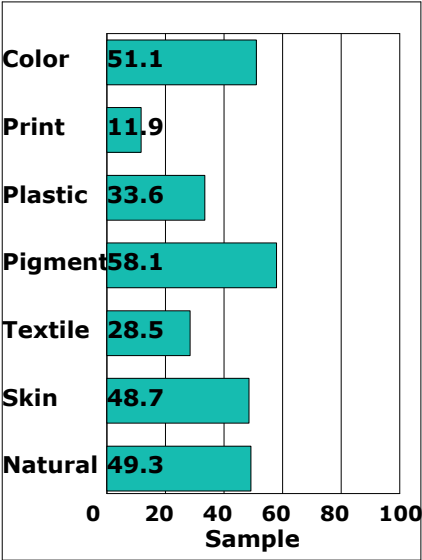
Electrical parameters:

Effic: 4.4 Lm/W Energy: 4.8 Effi: G
U: 220.4 V I: 0.398 A P: 53.450 W Pf: 0.609

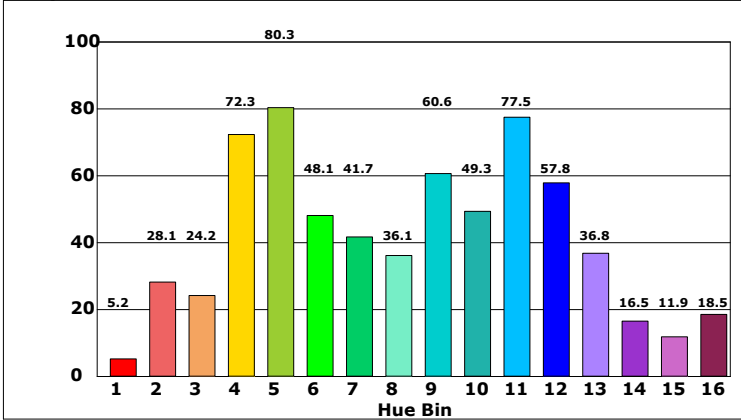
Rf: 43.1 CCT: 5910K u': 0.2238
Rg: 139.7 LER: 215.6 Duv: -0.02565 v': 0.4481



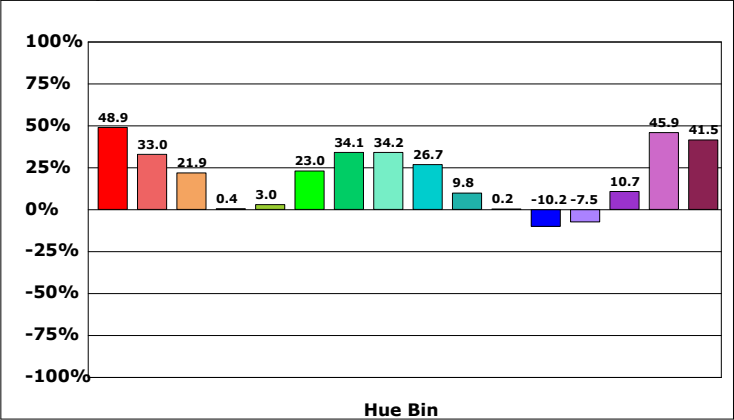
500			
Hue Bin	Rf	Chroma	Hue
1	5.2	48.9%	-1.3%
2	28.1	33.0%	-24.1%
3	24.2	21.9%	-31.5%
4	72.3	0.4%	-13.0%
5	80.3	3.0%	3.7%
6	48.1	23.0%	23.2%
7	41.7	34.1%	6.7%
8	36.1	34.2%	-0.7%
9	60.6	26.7%	-17.7%
10	49.3	9.8%	-23.1%
11	77.5	0.2%	-3.6%
12	57.8	-10.2%	23.3%
13	36.8	-7.5%	49.8%
14	16.5	10.7%	47.6%
15	11.9	45.9%	61.8%
16	18.5	41.5%	13.9%



Rf by Bue

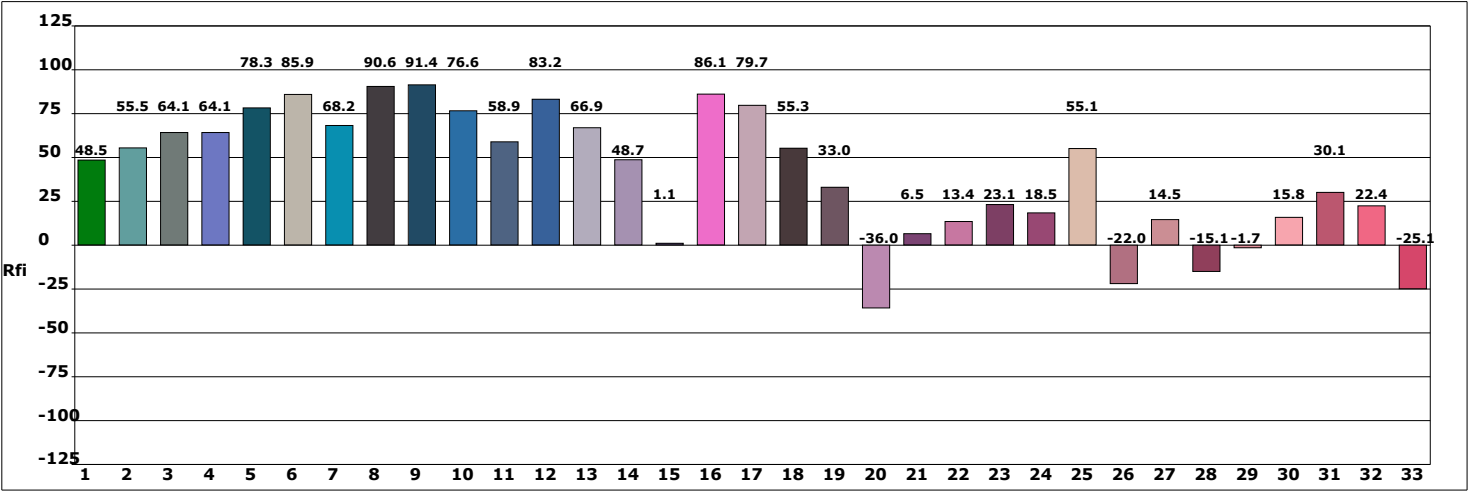
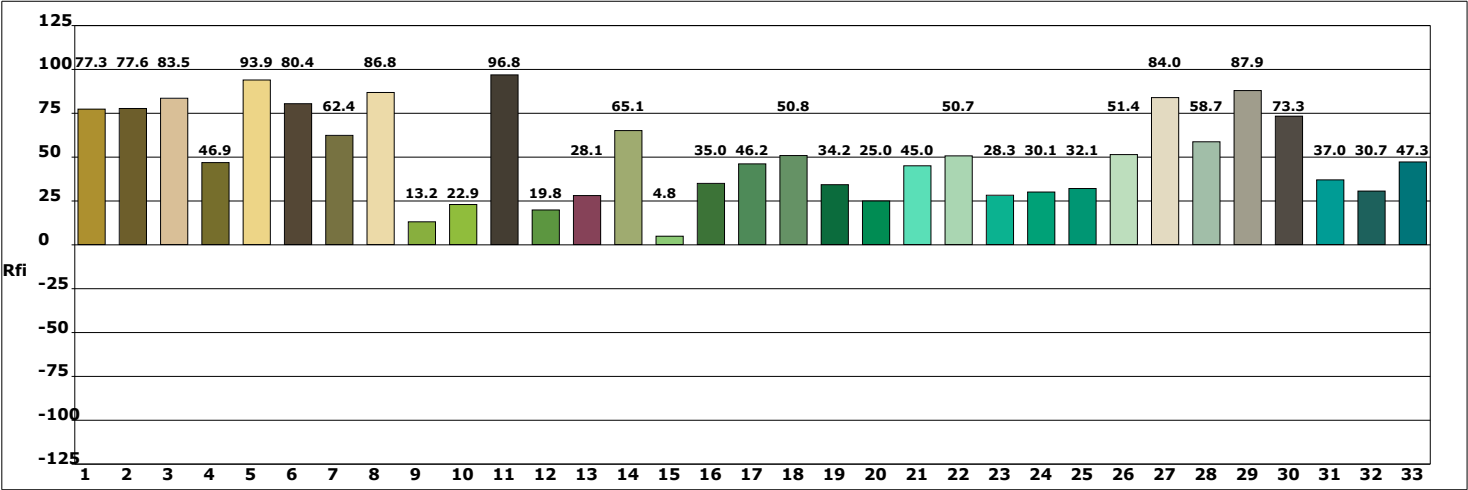
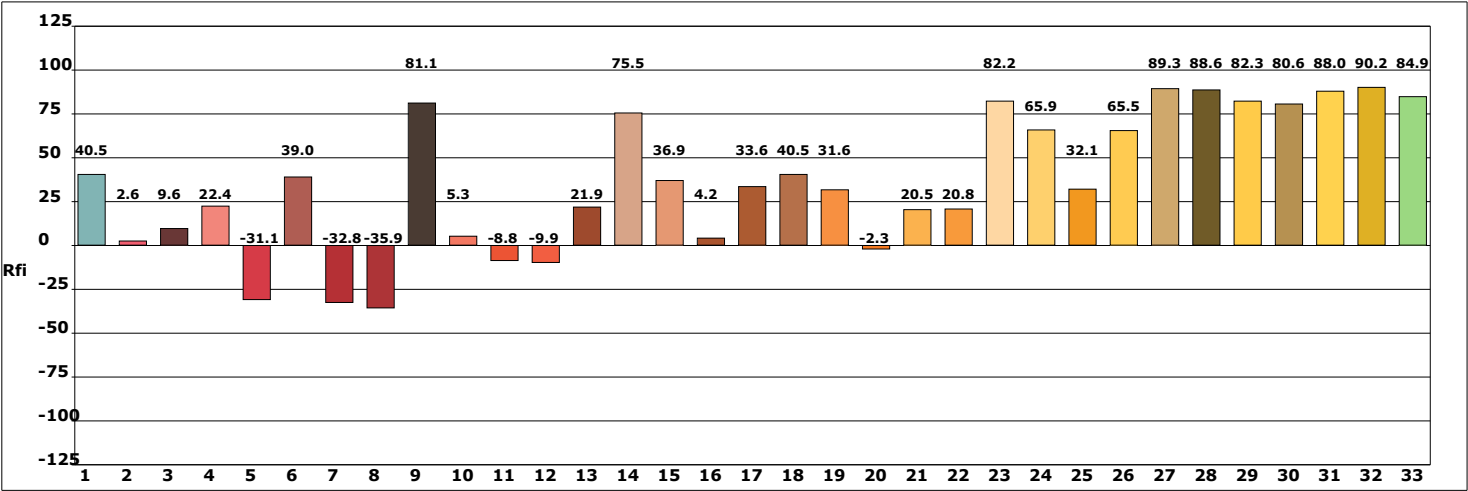


Chroma by Bue

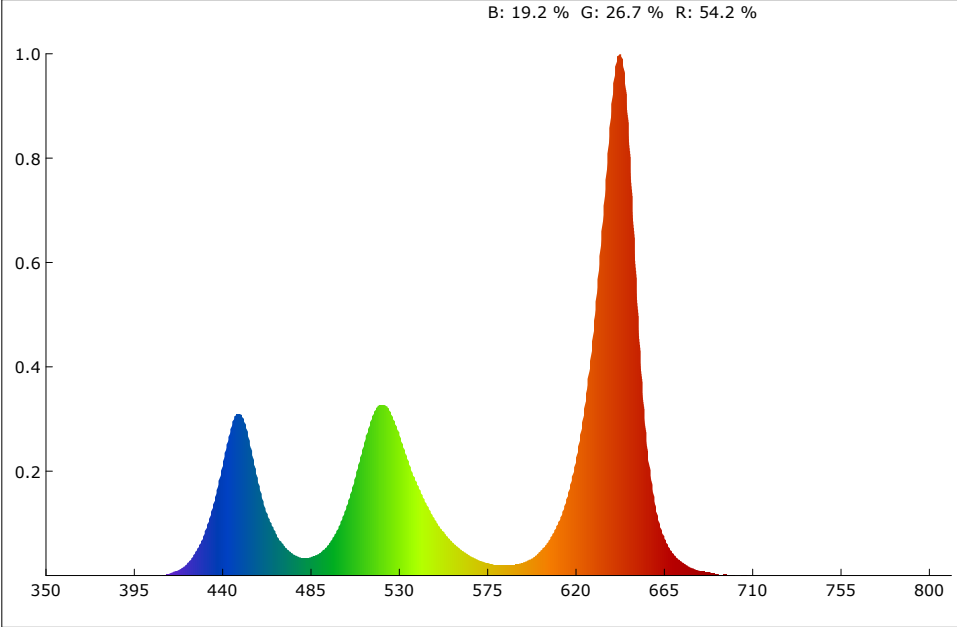


Product model:
Product number:
Tester:
Remarks:

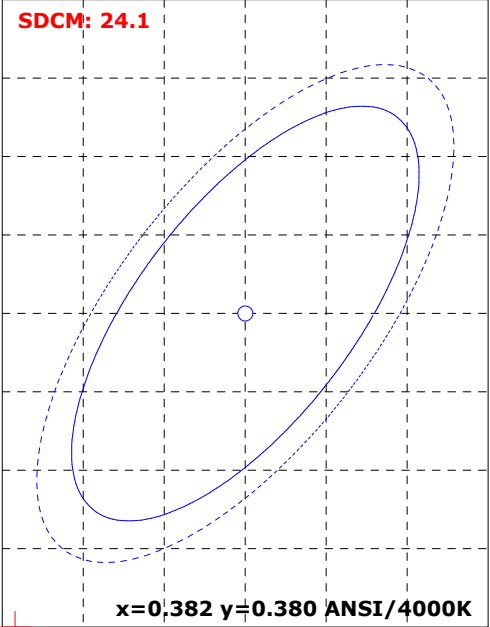
Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 03/17/14



Spectrogram



SDCM



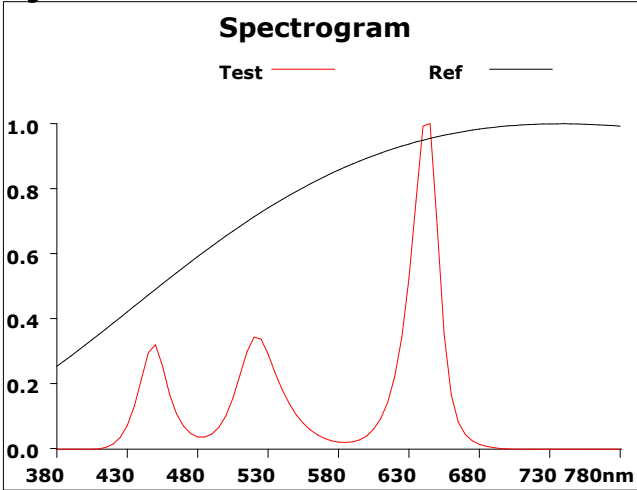
Color Parameter:

x: 0.3676	y: 0.3225	u: 0.2397	v: 0.3154	u': 0.2397	v': 0.4731
R_ratio: 54.2 %	G_ratio: 26.7 %	B_ratio: 19.2 %	RedRatio: 32.8 %	GreenRatio: 64.5 %	BlueRatio: 2.7 %
Ra: 7.2	AvgR: -0.9				
R1: -10.6	R2: 58.3	R3: 50.0	R4: -26.3	R5: -2.6	R6: 48.0
R7: 25.9	R8: -85.0	R9: -99.0	R10: 11.2	R11: -52.8	R12: 32.7
R13: 3.2	R14: 66.4	R15: -32.6			
CCT: 3927 K	Flux: 236.125 lm	PeakWave: 642.7 nm	SDCM: 24.1		
S/P: 2.3	CentralWave: 641.1 nm	DominantWave: 0.0 nm	CentroidWave: 574.9 nm		
HalfWidth: 21.6 nm	duv: -0.02391	purity: 0.0 %	CQS: 69.8		
LER(TM-30): 220.0	Ep: 1073.2 mw	Rg: 136.5	Rf: 44.0		
Red Ep: 581.1 mw	Near red Ep: 0.2 mw	Near infrared Ep: 0.0 mw			

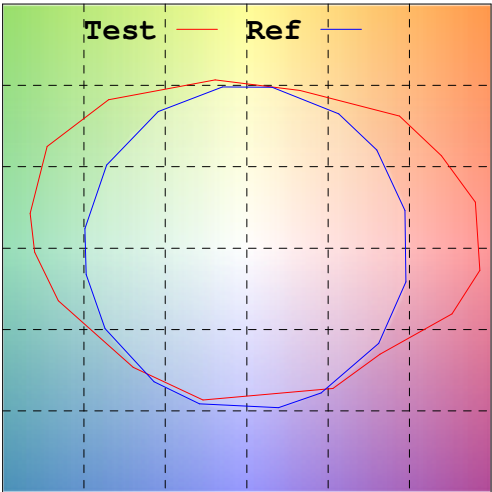
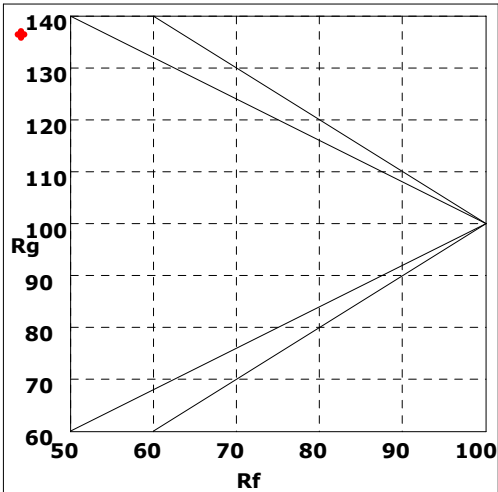
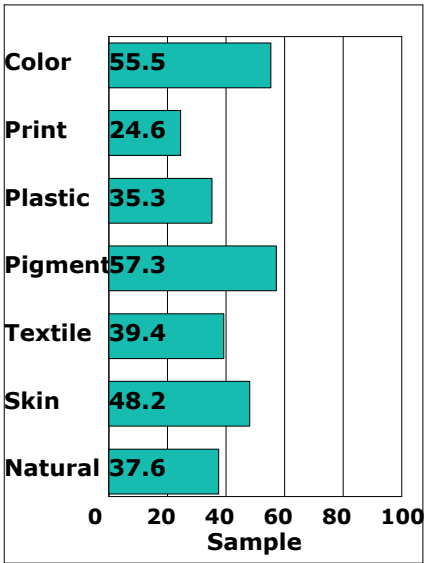
Electrical parameters:

Effic: 4.5 Lm/W	Energy: 4.9	Effi: G	
U: 220.3 V	I: 0.392 A	P: 52.570 W	Pf: 0.608

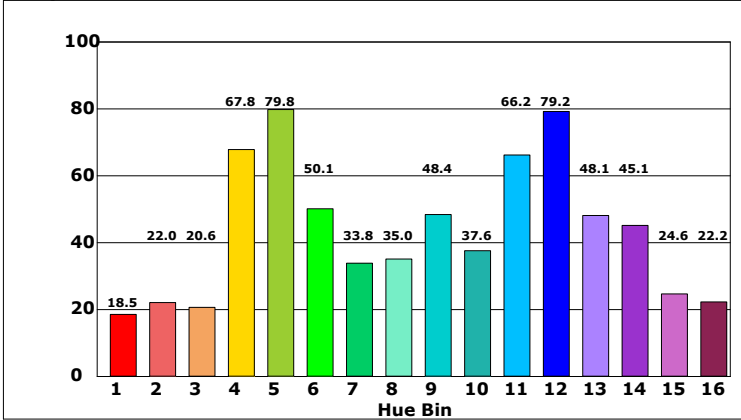
Rf: 44.0 CCT: 3927K u': 0.2397
Rg: 136.5 LER: 220.0 Duv: -0.02391 v': 0.4731



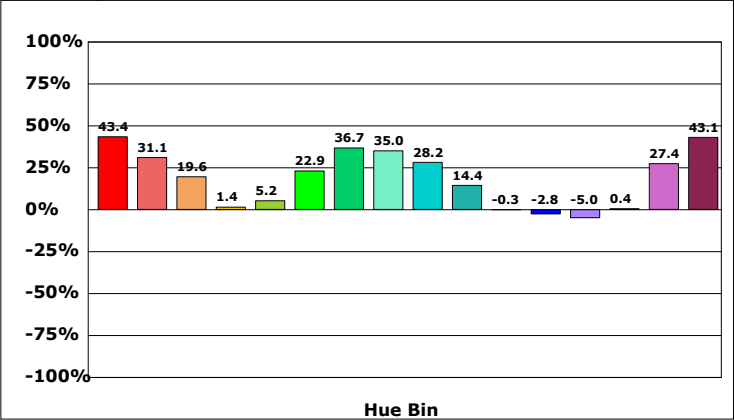
500			
Hue Bin	Rf	Chroma	Hue
1	18.5	43.4%	-3.5%
2	22.0	31.1%	-25.1%
3	20.6	19.6%	-32.0%
4	67.8	1.4%	-17.1%
5	79.8	5.2%	3.5%
6	50.1	22.9%	21.3%
7	33.8	36.7%	10.8%
8	35.0	35.0%	-2.6%
9	48.4	28.2%	-19.8%
10	37.6	14.4%	-30.2%
11	66.2	-0.3%	-15.5%
12	79.2	-2.8%	1.5%
13	48.1	-5.0%	35.1%
14	45.1	0.4%	43.2%
15	24.6	27.4%	40.2%
16	22.2	43.1%	15.7%



Rf by Bue

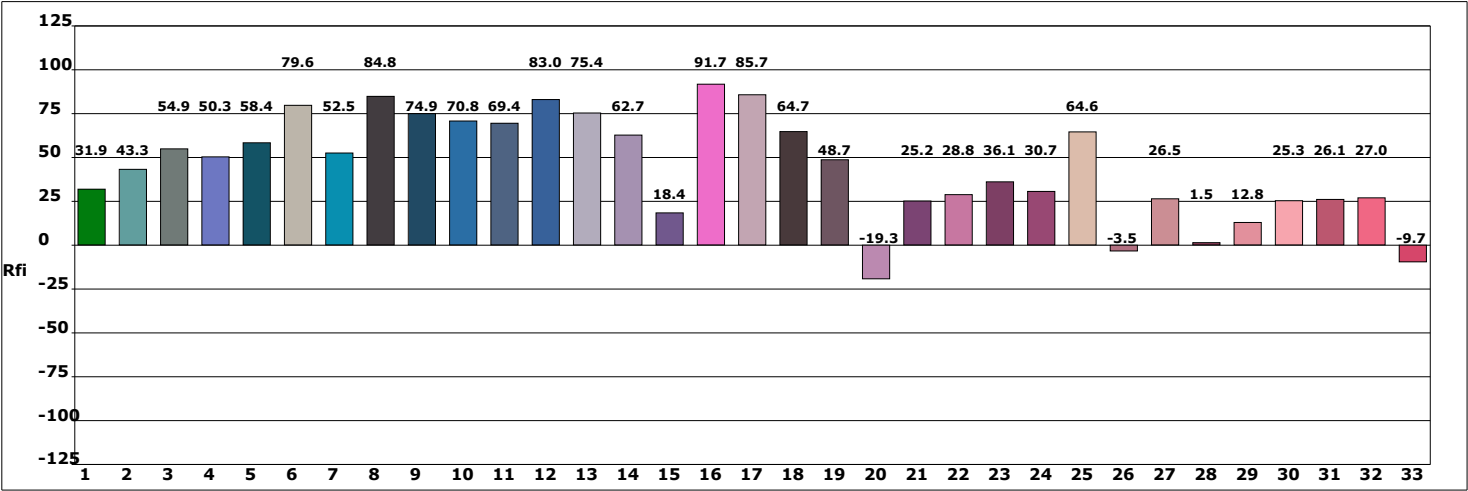
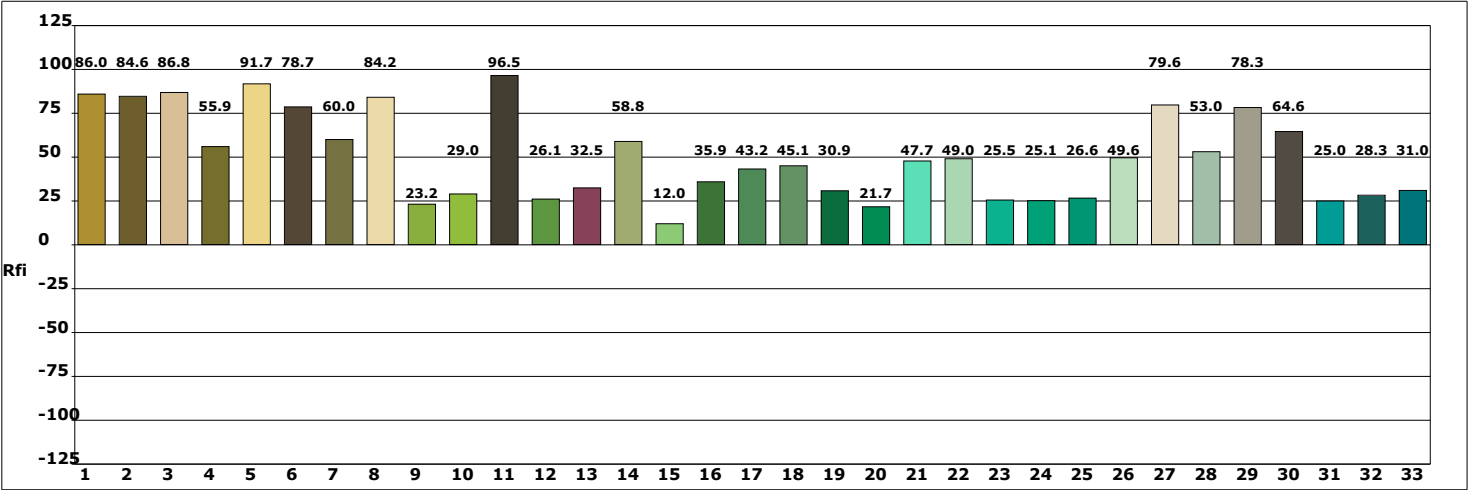
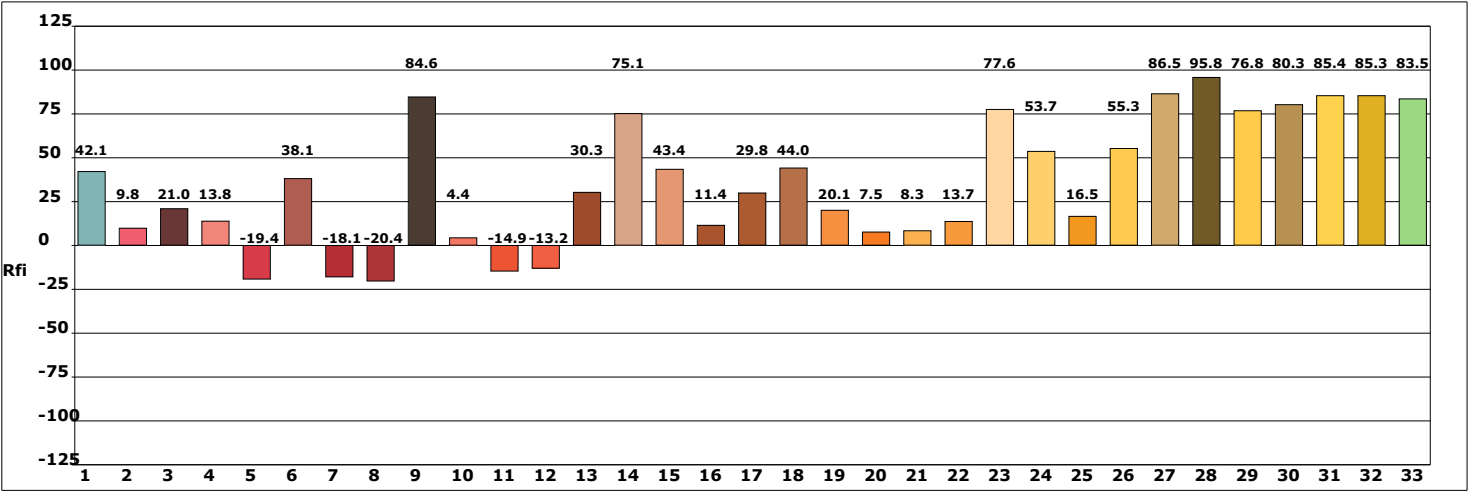


Chroma by Bue

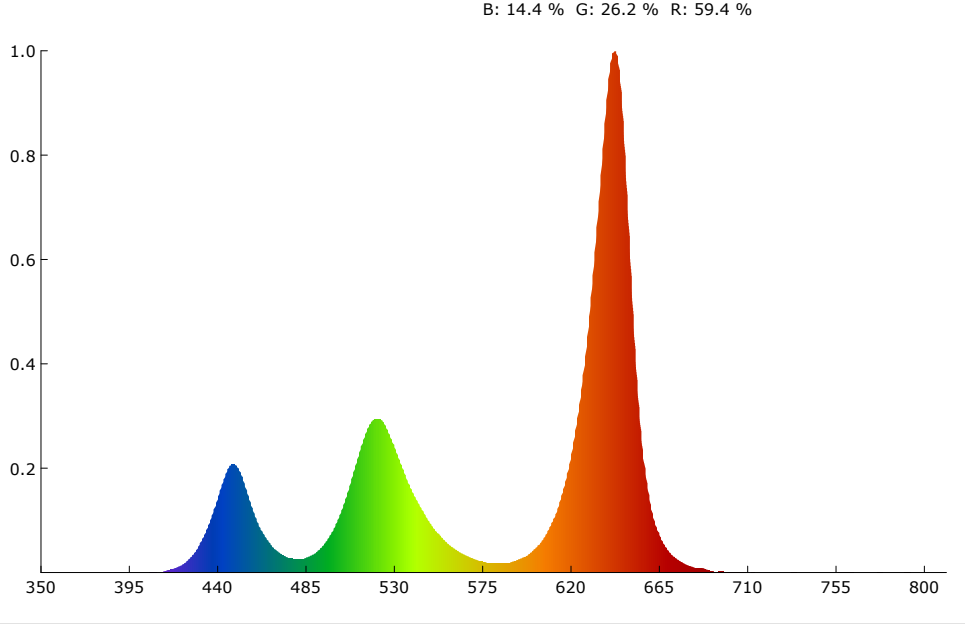


Product model:
Product number:
Tester:
Remarks:

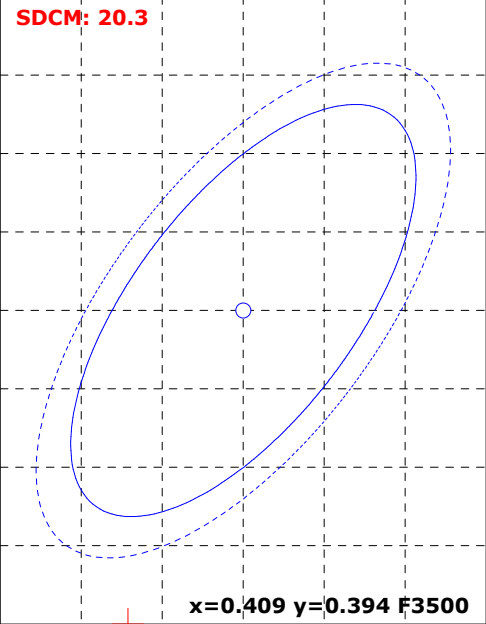
Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 03/17/14



Spectrogram



SDCM



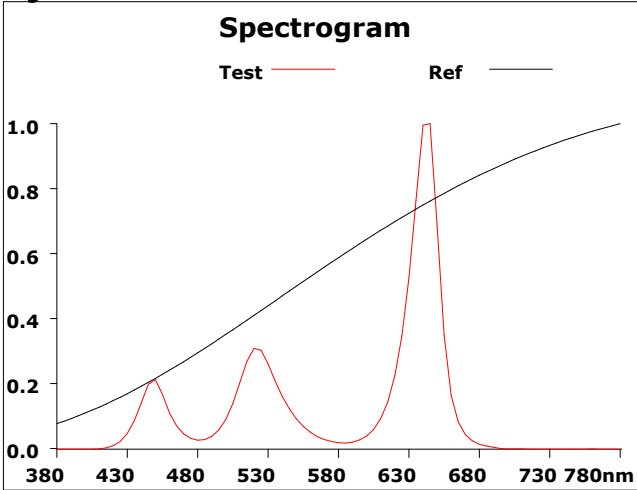
Color Parameter:

x: 0.4029	y: 0.3490	u: 0.2525	v: 0.3281	u': 0.2525	v': 0.4922		
R_ratio: 59.4 %	G_ratio: 26.2 %	B_ratio: 14.4 %	RedRatio: 35.5 %	GreenRatio: 62.5 %	BlueRatio: 2.0 %		
Ra: 6.5		AvgR: -2.8					
R1: -11.5	R2: 56.0	R3: 55.3	R4: -29.4	R5: -7.8	R6: 40.6	R7: 27.7	R8: -78.8
R9: -99.0	R10: 5.1	R11: -59.8	R12: 15.6	R13: 0.6	R14: 69.5	R15: -25.7	
CCT: 3167 K		Flux: 223.816 lm		PeakWave: 642.7 nm		SDCM: 20.3	
S/P: 2.1		CentralWave: 641.1 nm		DominantWave: 595.4 nm		CentroidWave: 584.6 nm	
HalfWidth: 21.6 nm		duv: -0.01879		purity: 25.6 %		CQS: 67.0	
LER(TM-30): 222.9		Ep: 1004.2 mw		Rg: 134.6		Rf: 42.5	
Red Ep: 595.5 mw		Near red Ep: 0.9 mw		Near infrared Ep: 0.2 mw			

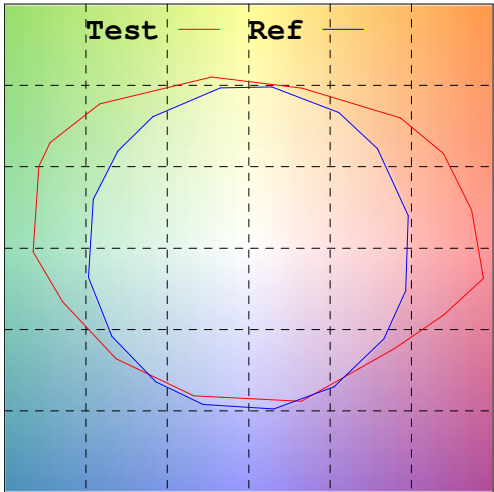
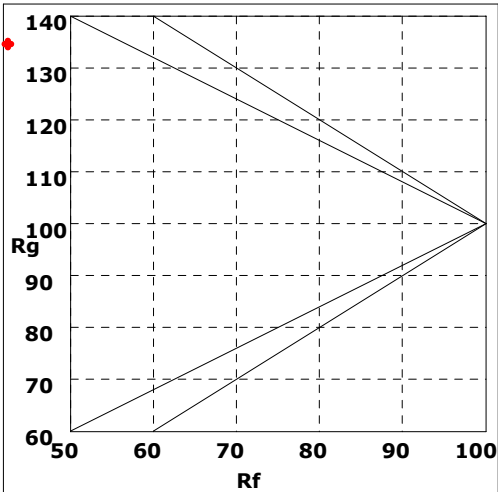
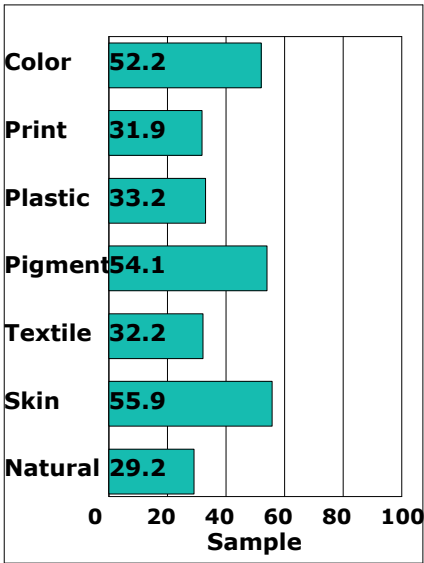
Electrical parameters:

Effic: 4.4 Lm/W	Energy: 4.8	Effi: G	
U: 220.4 V	I: 0.378 A	P: 50.490 W	Pf: 0.606

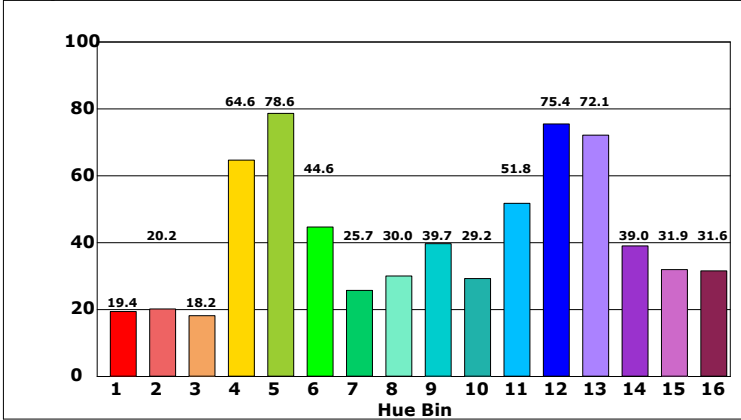
Rf: 42.5 CCT: 3167K u': 0.2525
Rg: 134.6 LER: 222.9 Duv: -0.01879 v': 0.4922



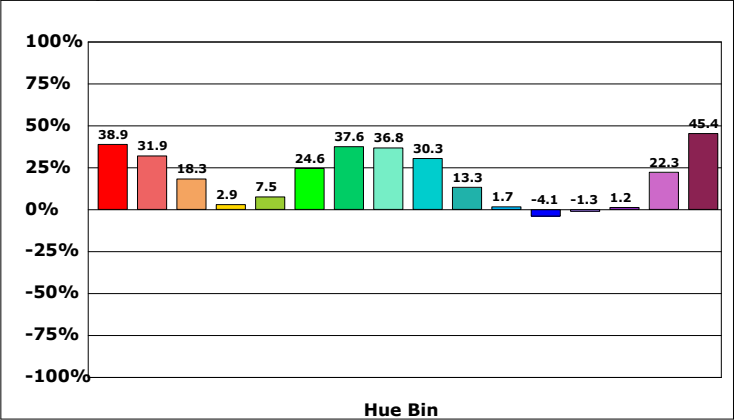
500			
Hue Bin	Rf	Chroma	Hue
1	19.4	38.9%	-4.2%
2	20.2	31.9%	-25.0%
3	18.2	18.3%	-33.4%
4	64.6	2.9%	-18.5%
5	78.6	7.5%	3.9%
6	44.6	24.6%	22.7%
7	25.7	37.6%	19.0%
8	30.0	36.8%	-13.2%
9	39.7	30.3%	-22.0%
10	29.2	13.3%	-34.5%
11	51.8	1.7%	-28.1%
12	75.4	-4.1%	-6.6%
13	72.1	-1.3%	17.5%
14	39.0	1.2%	43.7%
15	31.9	22.3%	32.4%
16	31.6	45.4%	16.9%



Rf by Bue

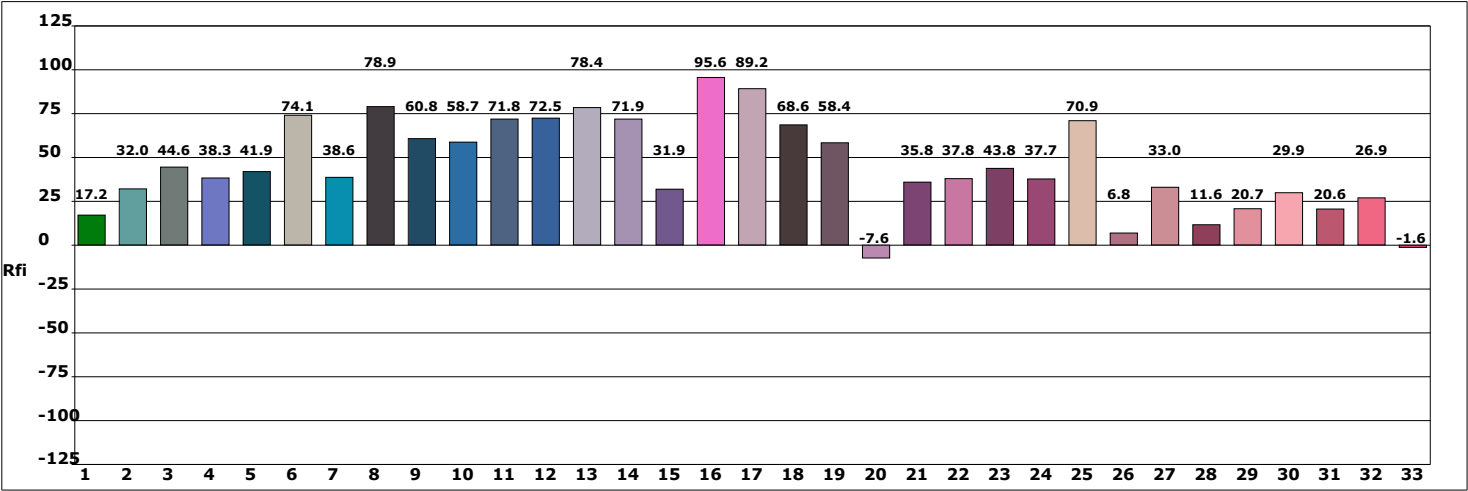
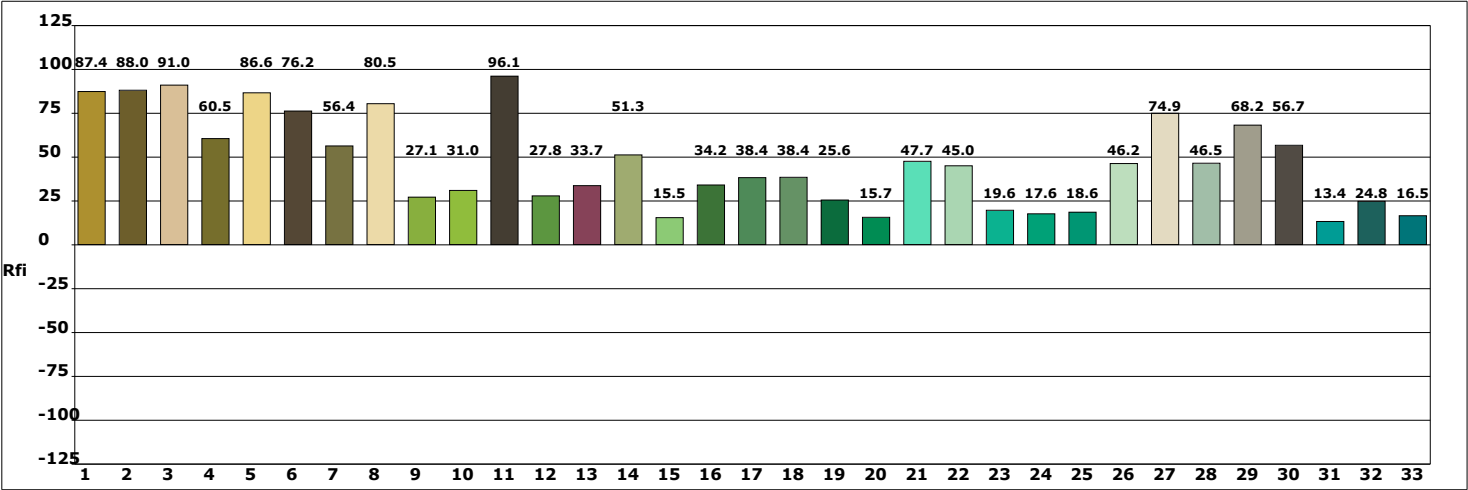
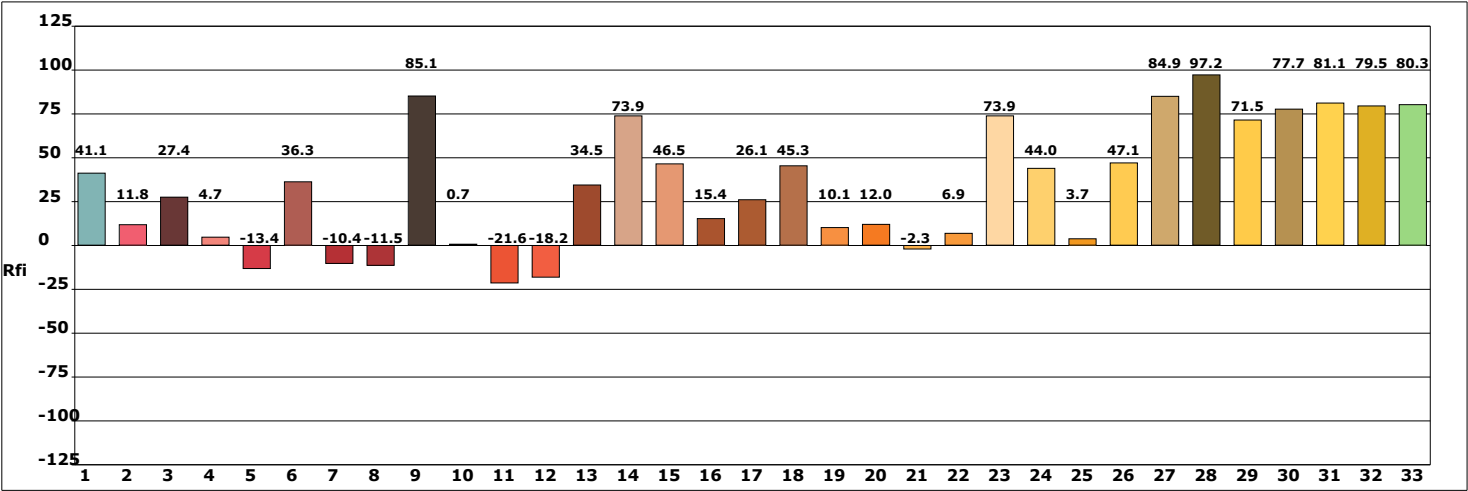


Chroma by Bue



Product model:
Product number:
Tester:
Remarks:

Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 03/17/14



Product model:
Product number:
Tester:
Remarks:

Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 03/17/14