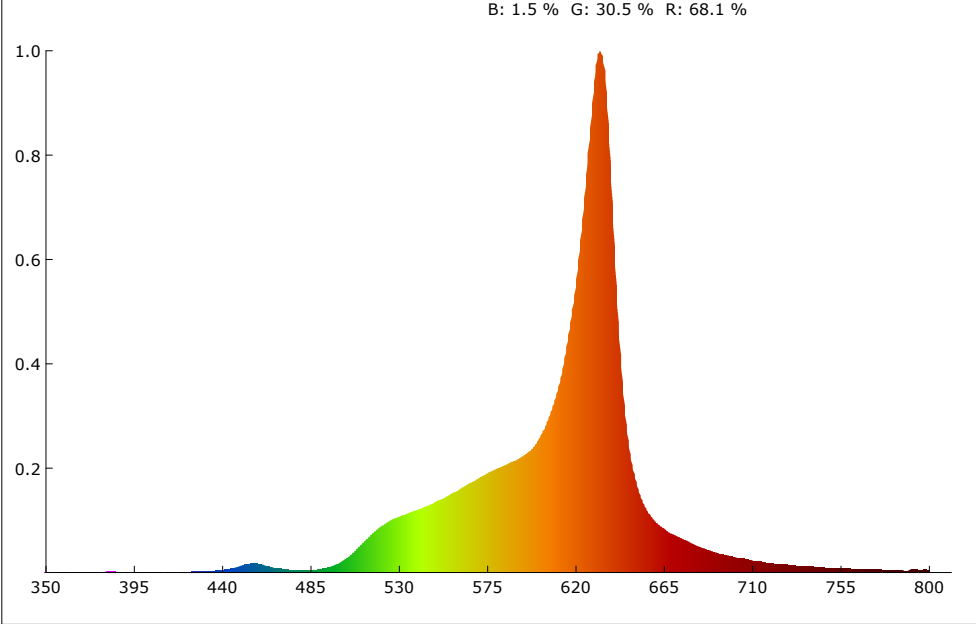
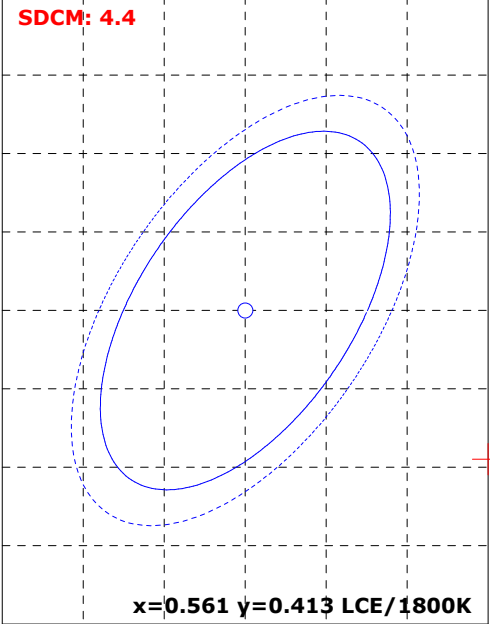


Spectrogram



SDCM



Color Parameter:

x: 0.5665 y: 0.4105 u: 0.3336 v: 0.3626 u': 0.3336 v': 0.5439
R_ratio: 68.1 % G_ratio: 30.5 % B_ratio: 1.5 % RedRatio: 41.2 % GreenRatio: 58.7 % BlueRatio: 0.2 %

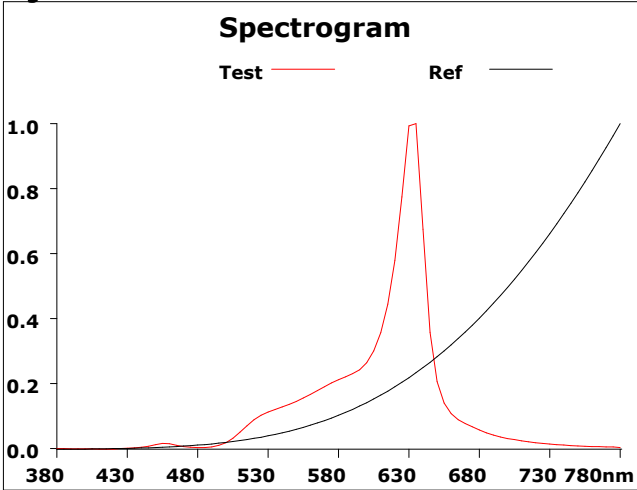
Ra: 93.7 AvgR: 91.6
R1: 96.9 R2: 98.9 R3: 86.0 R4: 92.7 R5: 97.7 R6: 93.6 R7: 94.4 R8: 89.9
R9: 73.7 R10: 89.6 R11: 85.7 R12: 94.8 R13: 97.6 R14: 87.5 R15: 94.9

CCT: 1701 K Flux: 1515.983 lm PeakWave: 632.5 nm SDCM: 4.4
S/P: 0.7 CentralWave: 630.1 nm DominantWave: 591.4 nm CentroidWave: 611.3 nm
HalfWidth: 22.9 nm duv: 0.00213 purity: 93.3 % CQS: 48.9
LER(TM-30): 298.5 Ep: 5078.7 mw Rg: 91.9 Rf: 85.3
Red Ep: 3360.7 mw Near red Ep: 121.5 mw Near infrared Ep: 12.9 mw

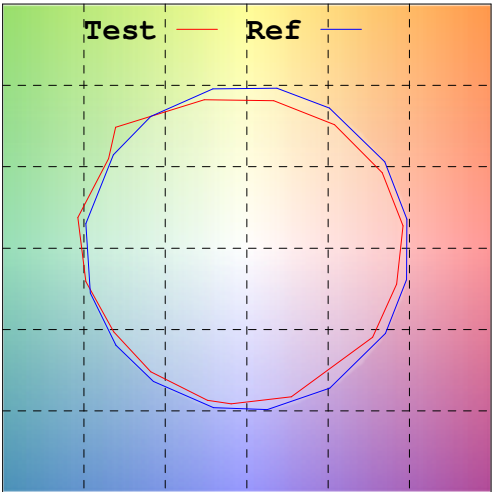
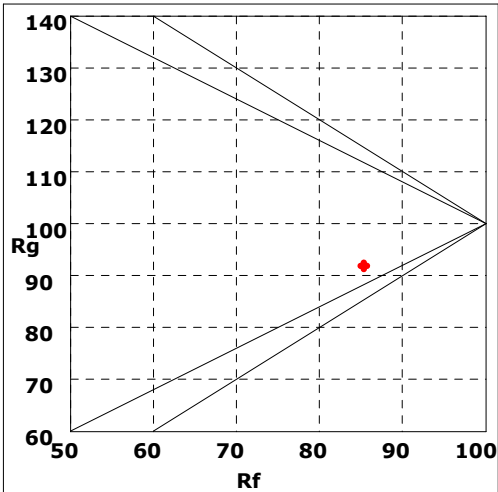
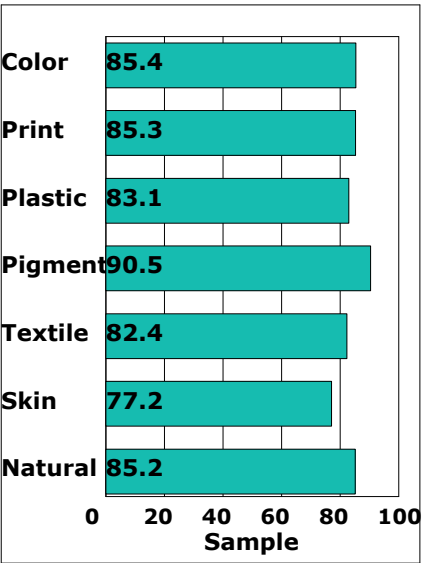
Electrical parameters:

Effic: 10.2 Lm/W Energy: 11.1 Effi: G
U: 219.0 V I: 1.005 A P: 148.700 W Pf: 0.675

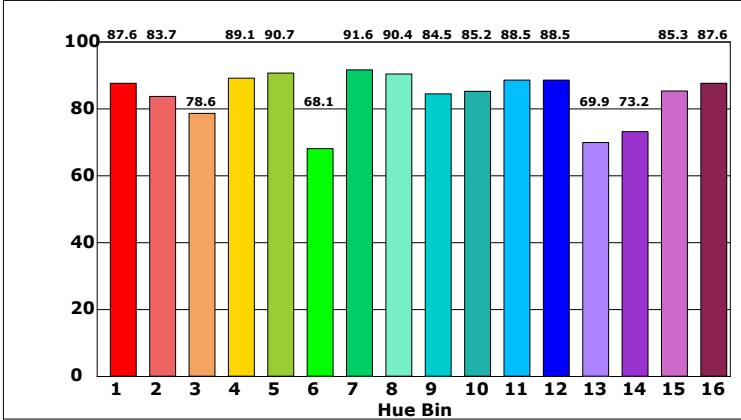
Rf: 85.3 CCT: 1701K u': 0.3336
Rg: 91.9 LER: 298.5 Duv: 0.00213 v': 0.5439



500			
Hue Bin	Rf	Chroma	Hue
1	87.6	-3.1%	-3.6%
2	83.7	-5.0%	-4.8%
3	78.6	-6.9%	-8.4%
4	89.1	-8.0%	0.5%
5	90.7	-5.6%	6.6%
6	68.1	6.6%	21.7%
7	91.6	1.1%	3.6%
8	90.4	5.5%	-2.7%
9	84.5	1.3%	-7.5%
10	85.2	-3.4%	-7.7%
11	88.5	-4.1%	-4.5%
12	88.5	-3.6%	-4.5%
13	69.9	-7.7%	-21.1%
14	73.2	-8.7%	-22.6%
15	85.3	-5.2%	-6.3%
16	87.6	-5.4%	-4.0%



Rf by Bue

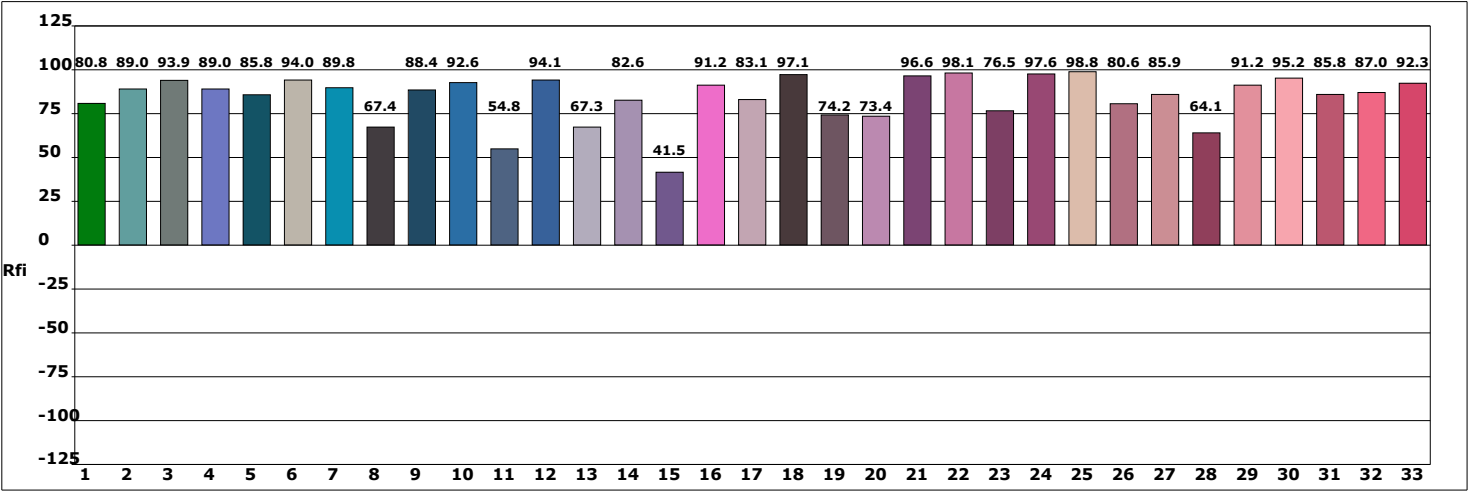
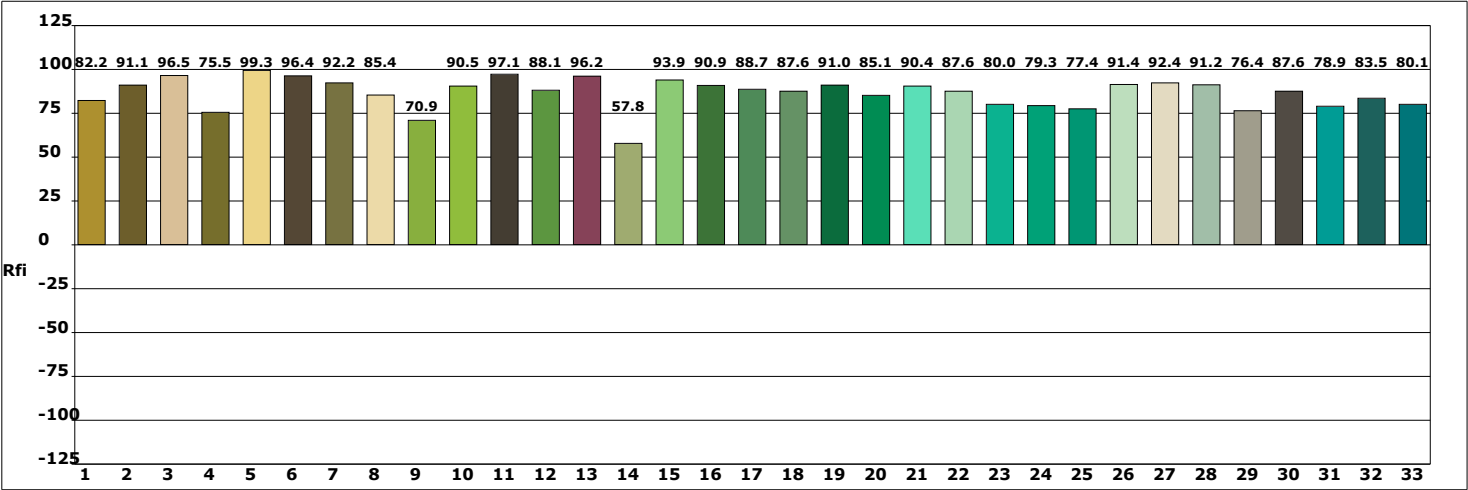
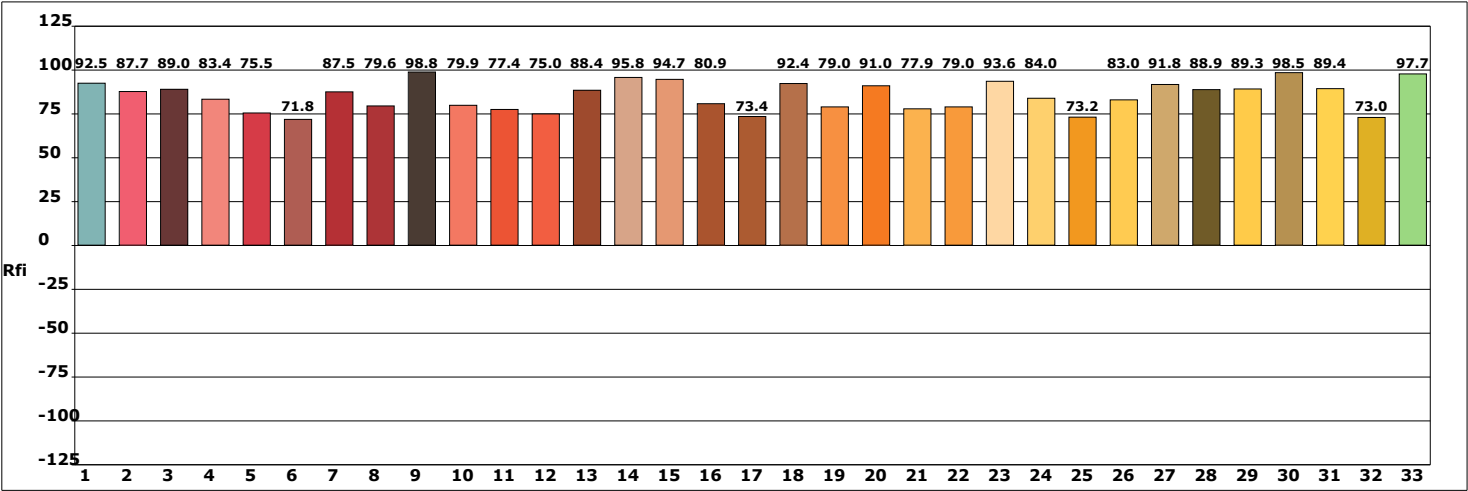


Chroma by Bue



Product model:
Product number:
Tester:
Remarks:

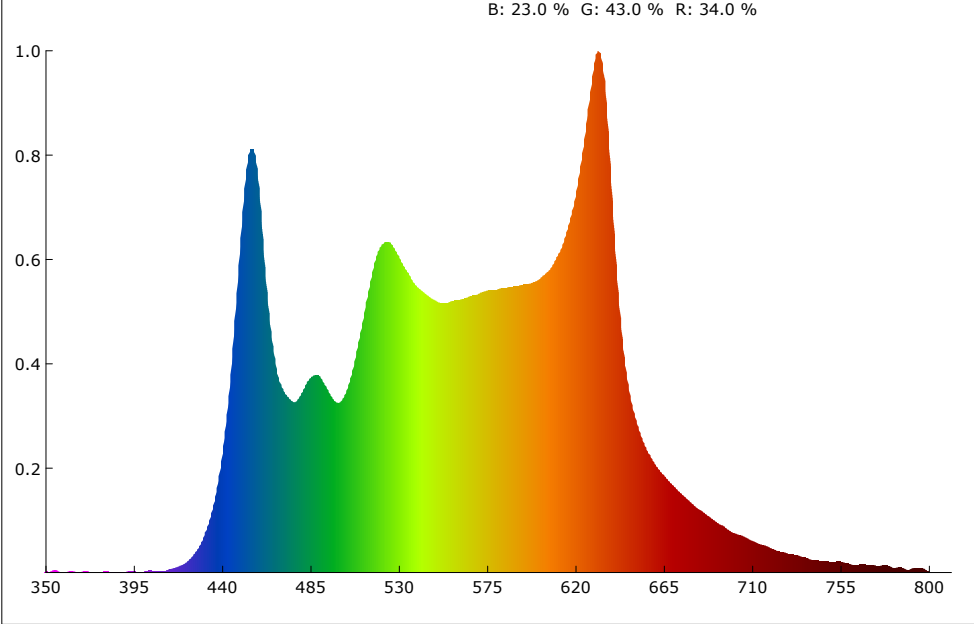
Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 03/19/14



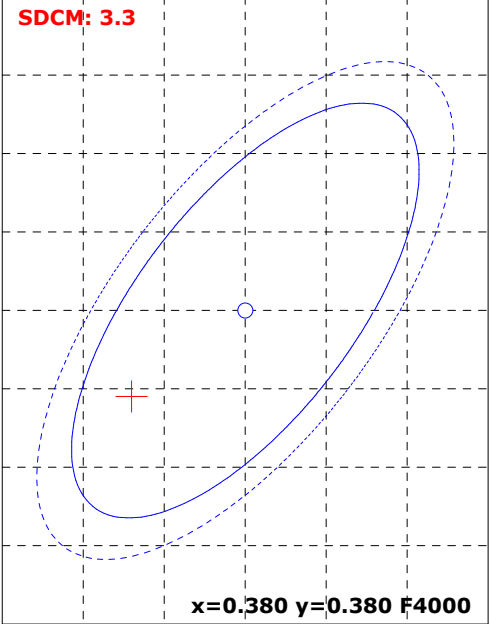
Product model:
Product number:
Tester:
Remarks:

Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 03/19/14

Spectrogram



SDCM



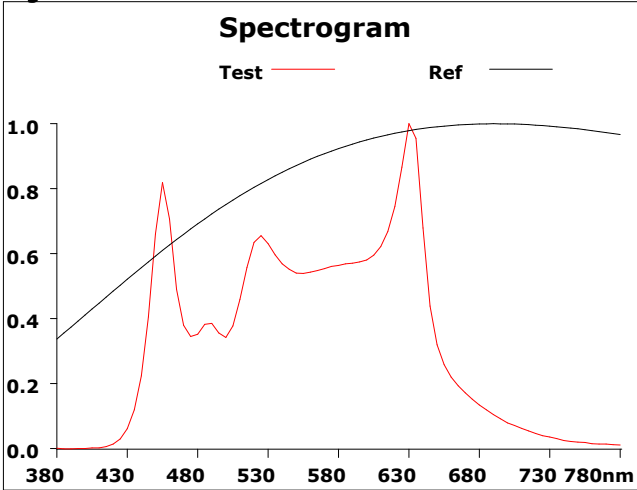
Color Parameter:

x: 0.3730	y: 0.3745	u: 0.2211	v: 0.3330	u': 0.2211	v': 0.4995
R_ratio: 34.0 %	G_ratio: 43.0 %	B_ratio: 23.0 %	RedRatio: 19.8 %	GreenRatio: 76.9 %	BlueRatio: 3.3 %
Ra: 97.0	AvgR: 95.2				
R1: 96.3	R2: 99.5	R3: 95.8	R4: 97.7	R5: 97.7	R6: 96.5
R7: 96.4	R8: 96.3	R9: 96.3	R10: 97.6	R11: 94.4	R12: 73.5
R13: 97.0	R14: 96.1	R15: 96.6			
CCT: 4193 K	Flux: 1969.380 lm	PeakWave: 631.5 nm	SDCM: 3.3		
S/P: 1.9	CentralWave: 577.6 nm	DominantWave: 577.6 nm	CentroidWave: 562.8 nm		
HalfWidth: 129.5 nm	duv: 0.00120	purity: 24.3 %	CQS: 94.3		
LER(TM-30): 314.3	Ep: 6265.6 mw	Rg: 99.3	Rf: 90.1		
Red Ep: 2084.2 mw	Near red Ep: 131.3 mw	Near infrared Ep: 8.7 mw			

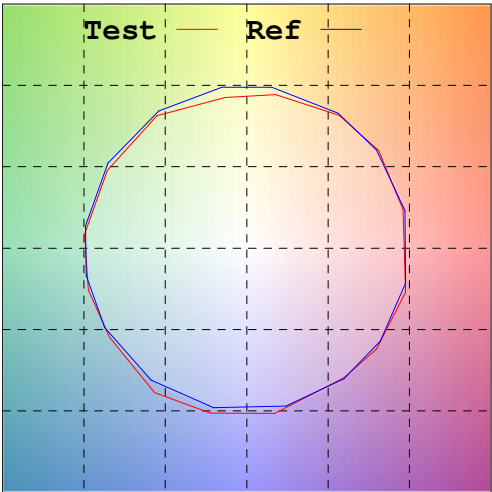
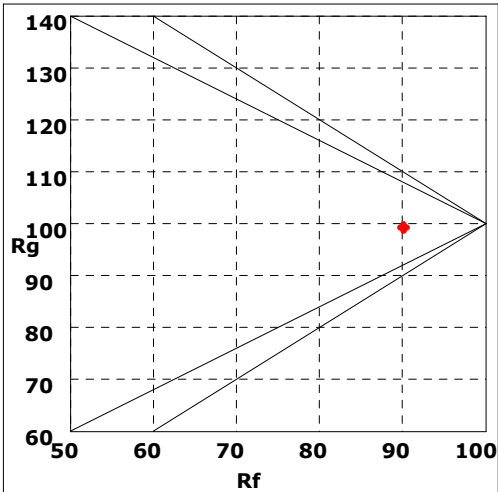
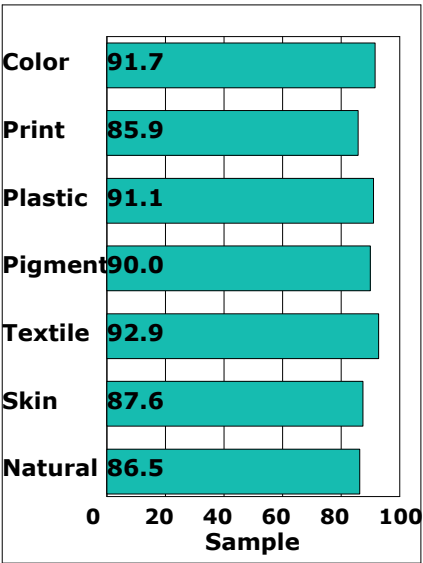
Electrical parameters:

Effic: 10.9 Lm/W	Energy: 11.9	Effi: G	
U: 219.1 V	I: 1.195 A	P: 180.400 W	Pf: 0.689

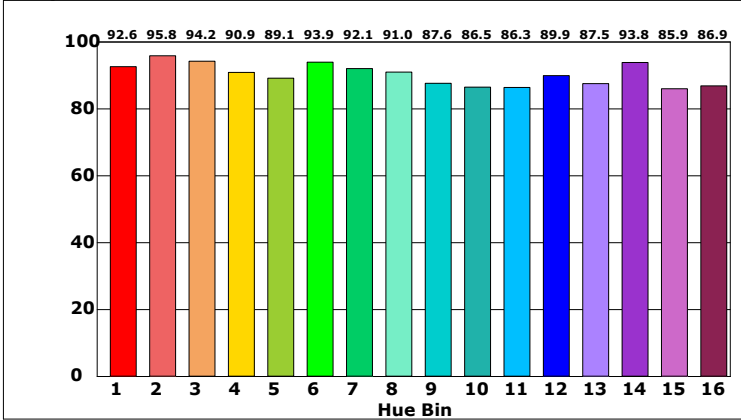
Rf: 90.1 CCT: 4193K u': 0.2211
Rg: 99.3 LER: 314.3 Duv: 0.00120 v': 0.4995



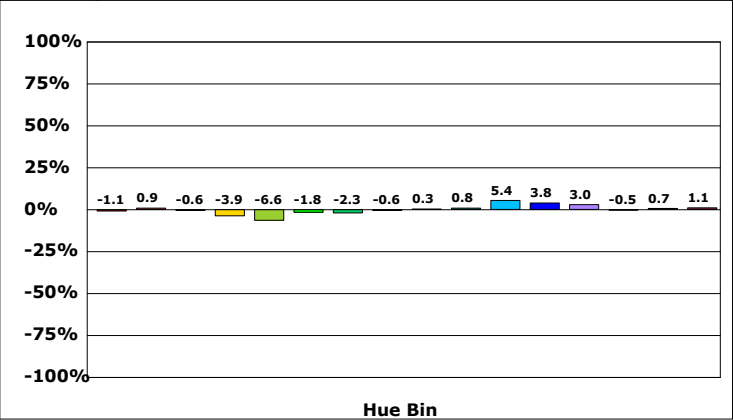
500			
Hue Bin	Rf	Chroma	Hue
1	92.6	-1.1%	0.9%
2	95.8	0.9%	-1.2%
3	94.2	-0.6%	-1.4%
4	90.9	-3.9%	-3.1%
5	89.1	-6.6%	-0.6%
6	93.9	-1.8%	2.6%
7	92.1	-2.3%	3.9%
8	91.0	-0.6%	5.1%
9	87.6	0.3%	9.1%
10	86.5	0.8%	6.6%
11	86.3	5.4%	6.0%
12	89.9	3.8%	-1.3%
13	87.5	3.0%	-7.5%
14	93.8	-0.5%	0.5%
15	85.9	0.7%	-5.5%
16	86.9	1.1%	-5.4%



Rf by Bue

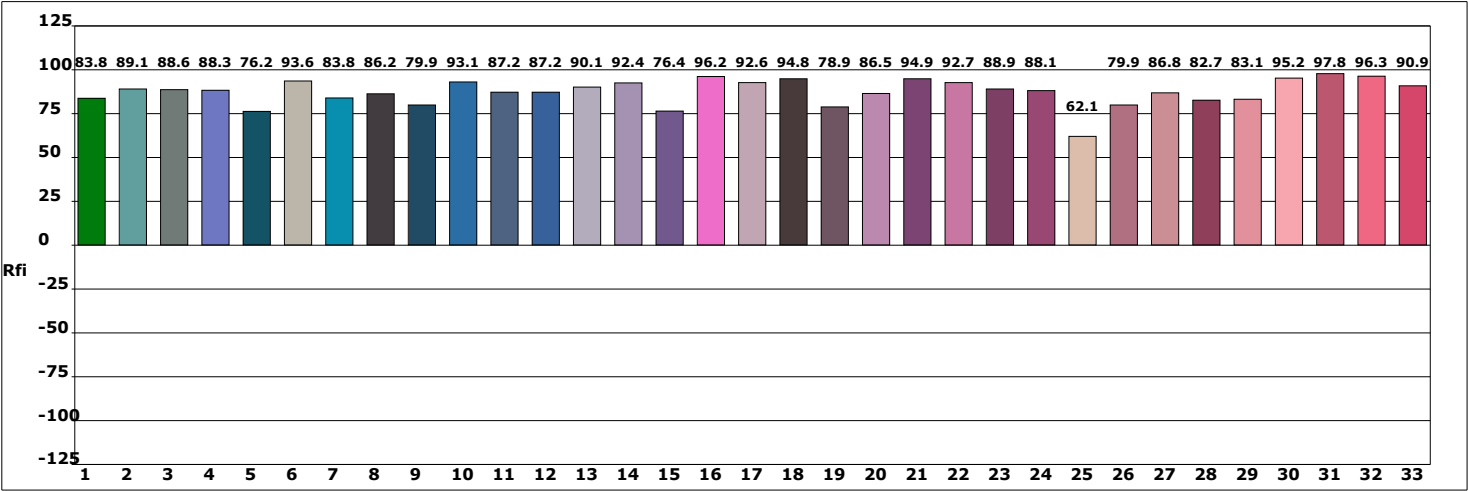
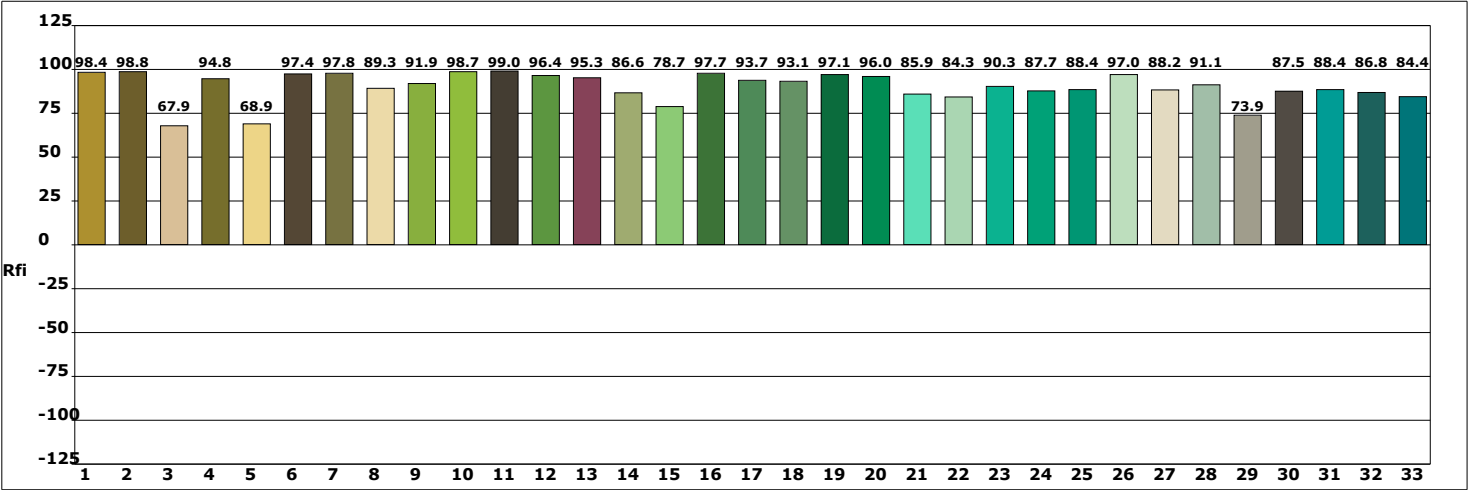
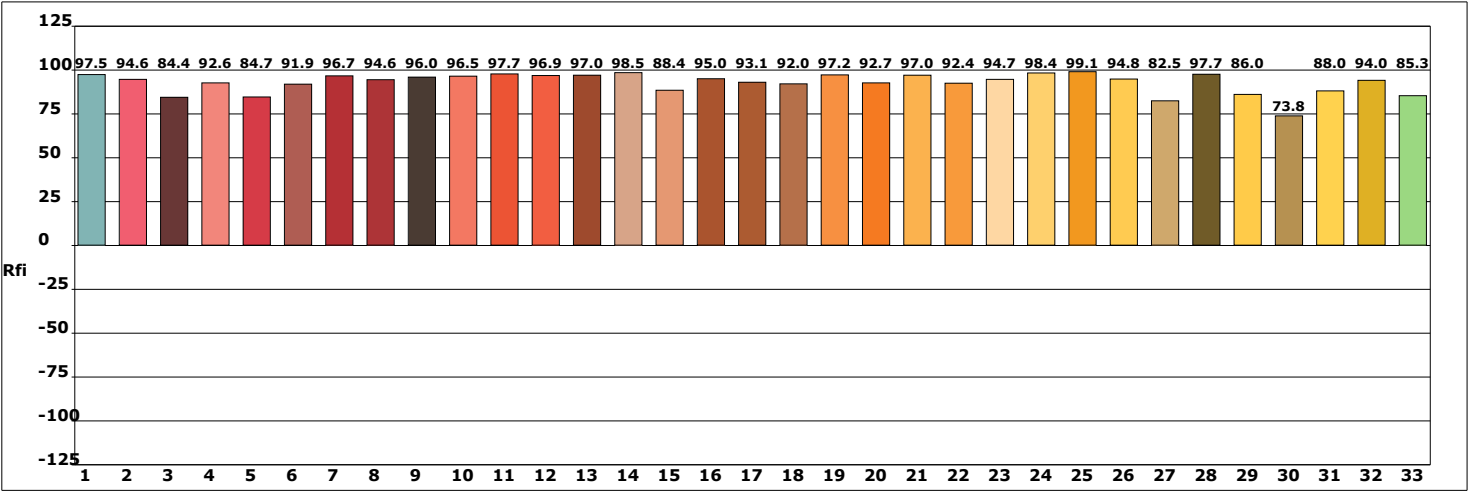


Chroma by Bue



Product model:
Product number:
Tester:
Remarks:

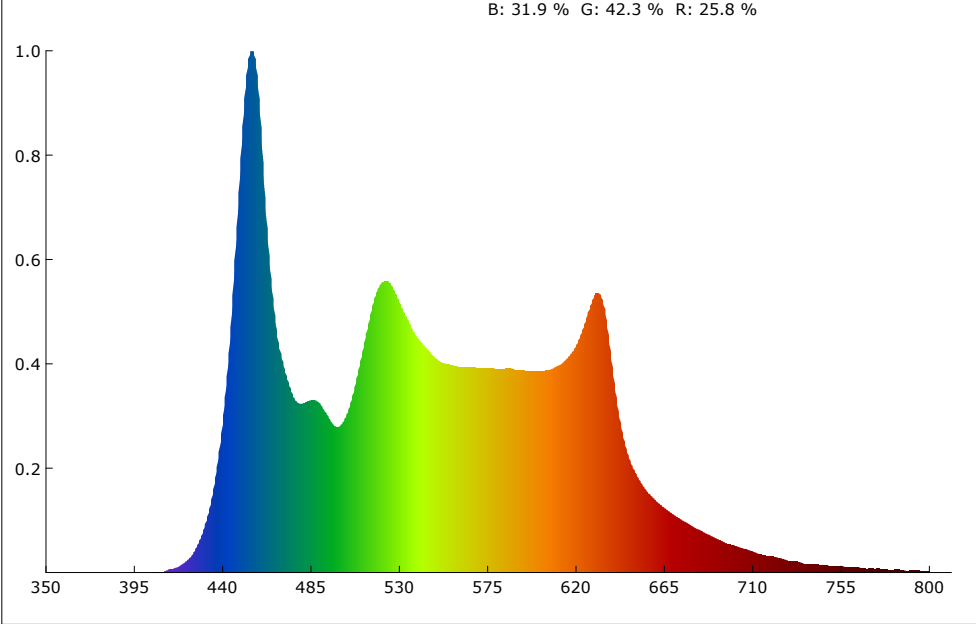
Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 03/19/14



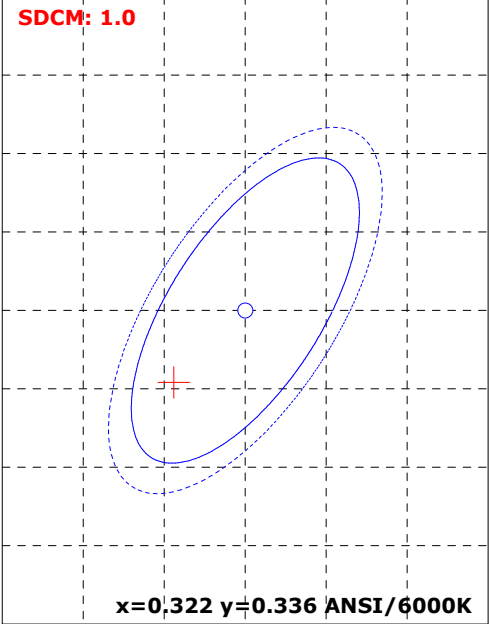
Product model:
Product number:
Tester:
Remarks:

Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 03/19/14

Spectrogram



SDCM



Color Parameter:

x: 0.3206 y: 0.3354 u: 0.2009 v: 0.3152 u': 0.2009 v': 0.4728
R_ratio: 25.8 % G_ratio: 42.3 % B_ratio: 31.9 % RedRatio: 15.9 % GreenRatio: 79.5 % BlueRatio: 4.6 %

Ra: 96.6 AvgR: 94.1
R1: 97.2 R2: 98.7 R3: 95.0 R4: 99.1 R5: 96.5 R6: 95.0 R7: 96.4 R8: 95.2
R9: 90.6 R10: 94.5 R11: 95.1 R12: 67.6 R13: 98.4 R14: 96.2 R15: 96.0

CCT: 6064 K Flux: 1969.272 lm PeakWave: 455.4 nm SDCM: 1.0
S/P: 2.3 CentralWave: 455.8 nm DominantWave: 493.8 nm CentroidWave: 546.3 nm
HalfWidth: 21.2 nm duv: 0.00254 purity: 4.2 % CQS: 92.1
LER(TM-30): 299.4 Ep: 6578.2 mw Rg: 99.4 Rf: 89.6
Red Ep: 1665.5 mw Near red Ep: 111.2 mw Near infrared Ep: 6.6 mw

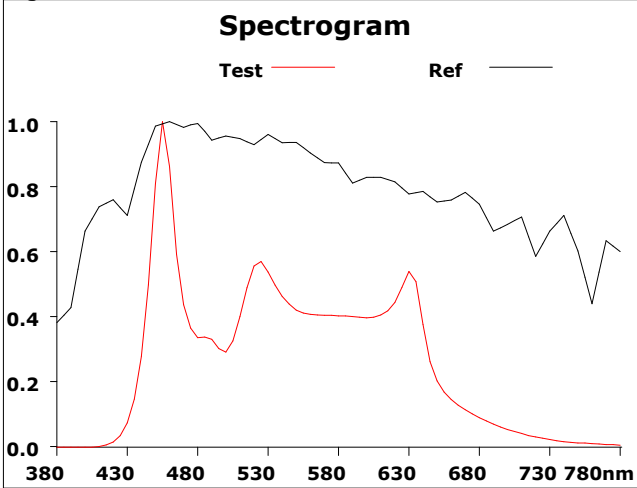
Electrical parameters:

Effic: 10.4 Lm/W Energy: 11.3 Effi: G
U: 218.8 V I: 1.245 A P: 189.200 W Pf: 0.694

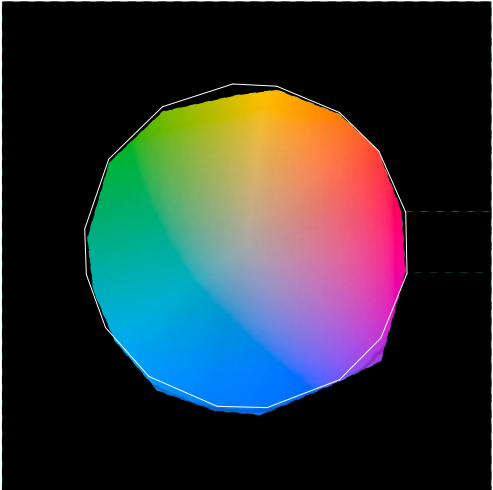
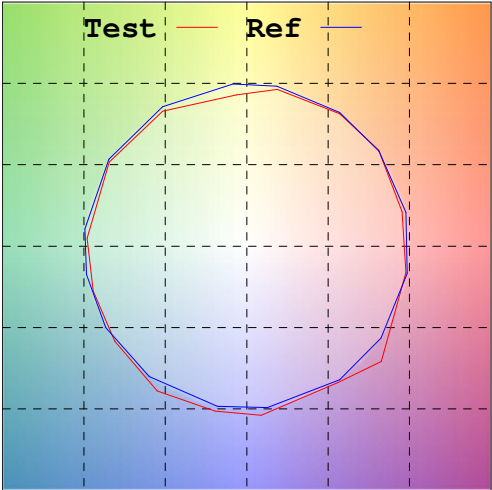
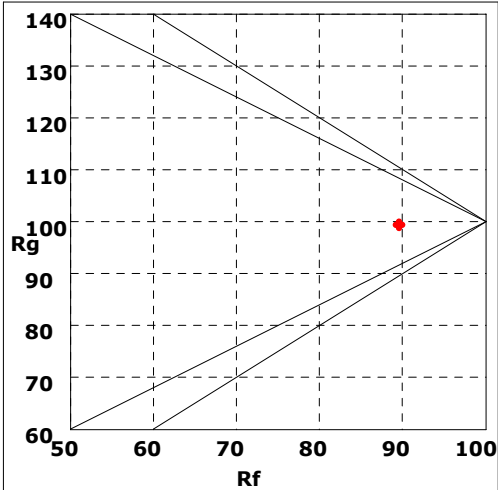
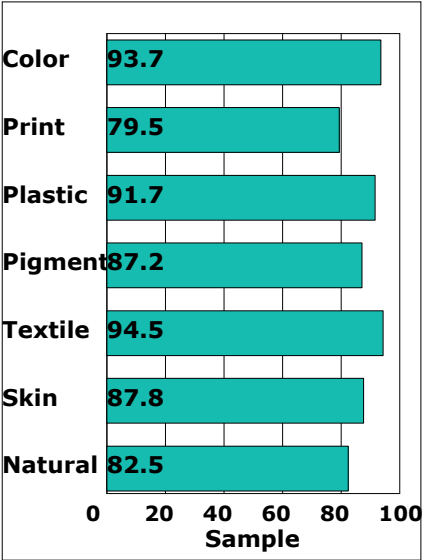
Product model:
Product number:
Tester:
Remarks:

Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 03/19/14

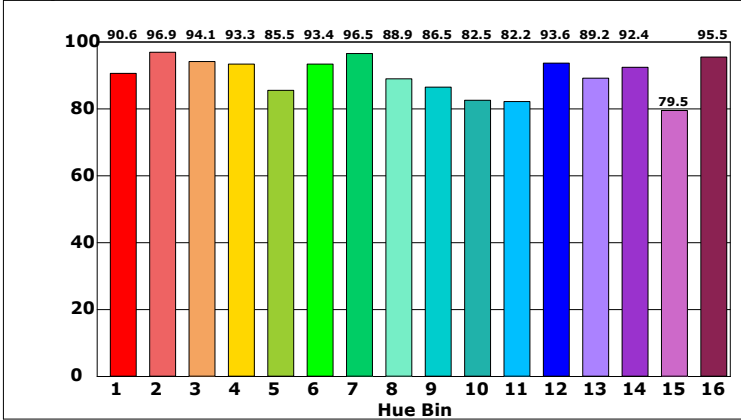
Rf: 89.6 CCT: 6064K u': 0.2009
Rg: 99.4 LER: 299.4 Duv: 0.00254 v': 0.4728



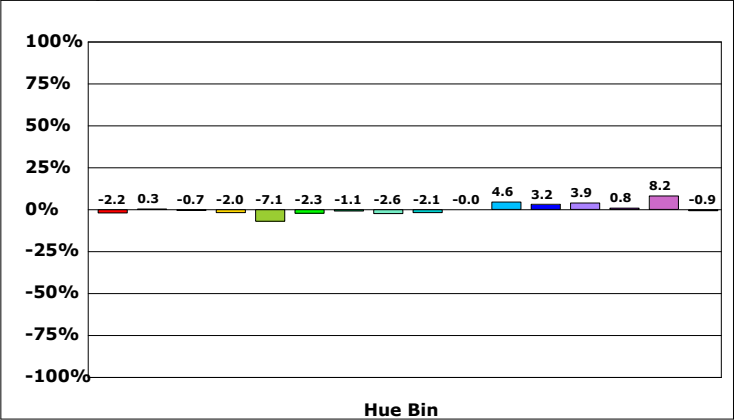
500			
Hue Bin	Rf	Chroma	Hue
1	90.6	-2.2%	1.0%
2	96.9	0.3%	0.6%
3	94.1	-0.7%	-0.5%
4	93.3	-2.0%	-0.5%
5	85.5	-7.1%	-0.9%
6	93.4	-2.3%	1.6%
7	96.5	-1.1%	1.2%
8	88.9	-2.6%	5.4%
9	86.5	-2.1%	10.8%
10	82.5	-0.0%	10.0%
11	82.2	4.6%	8.9%
12	93.6	3.2%	-0.9%
13	89.2	3.9%	-4.7%
14	92.4	0.8%	-1.9%
15	79.5	8.2%	-11.8%
16	95.5	-0.9%	0.4%



Rf by Bue

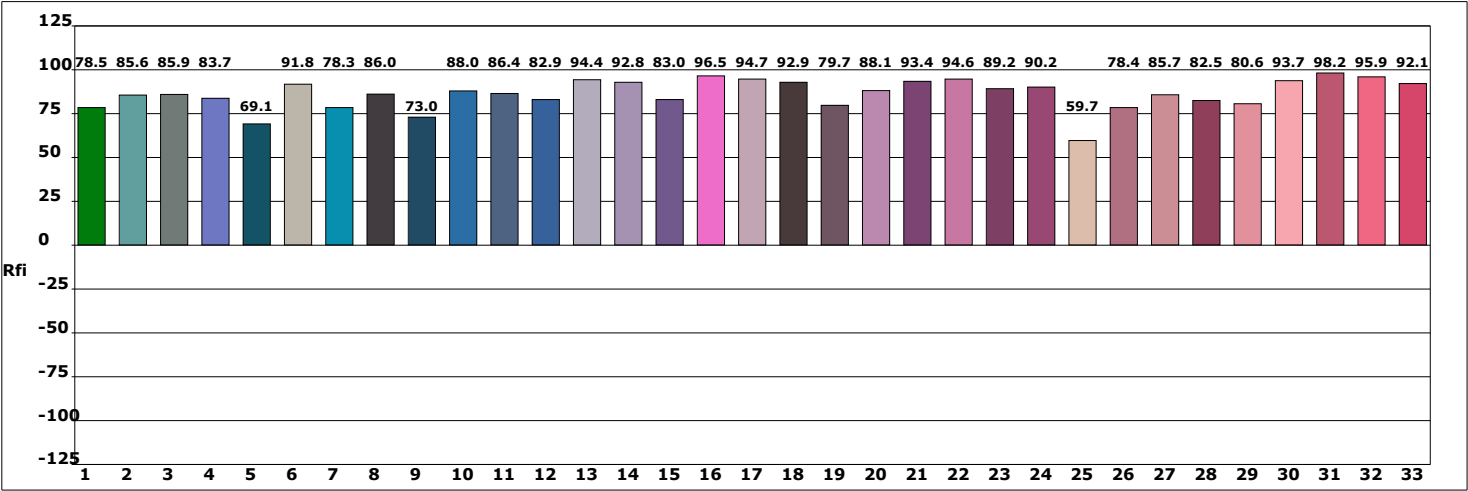
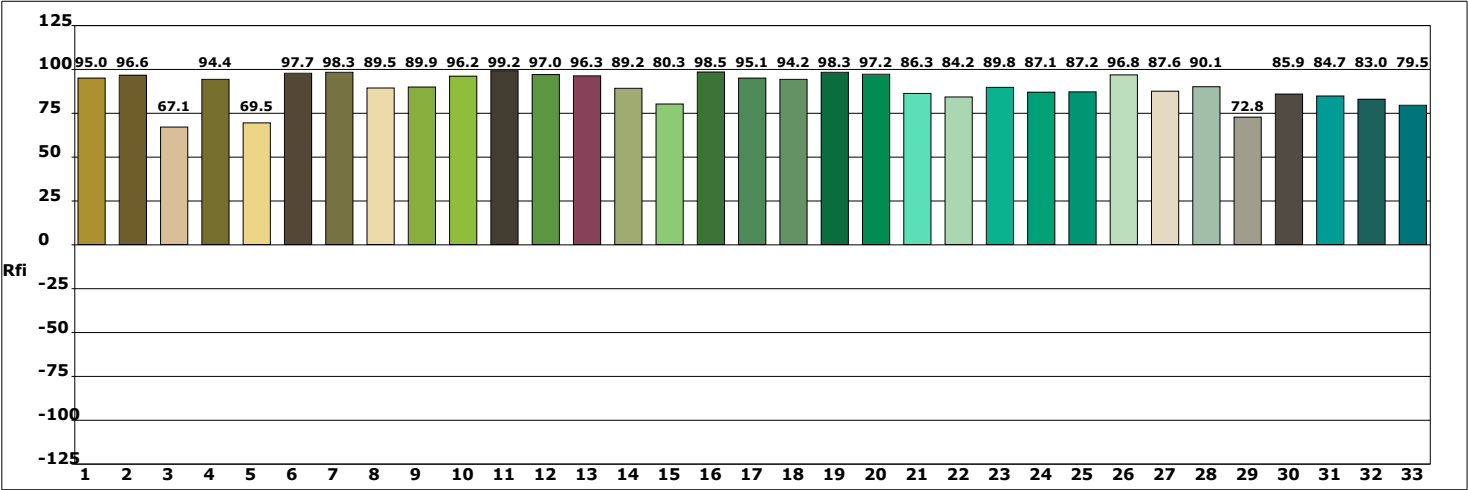
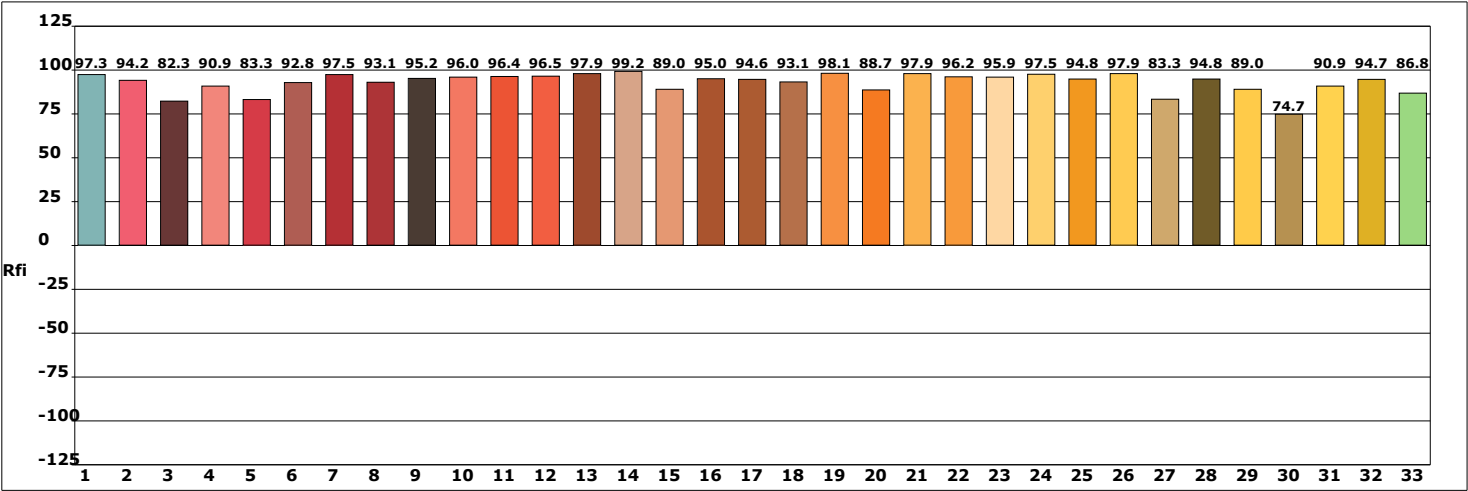


Chroma by Bue



Product model:
Product number:
Tester:
Remarks:

Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 03/19/14



Product model:
Product number:
Tester:
Remarks:

Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 03/19/14