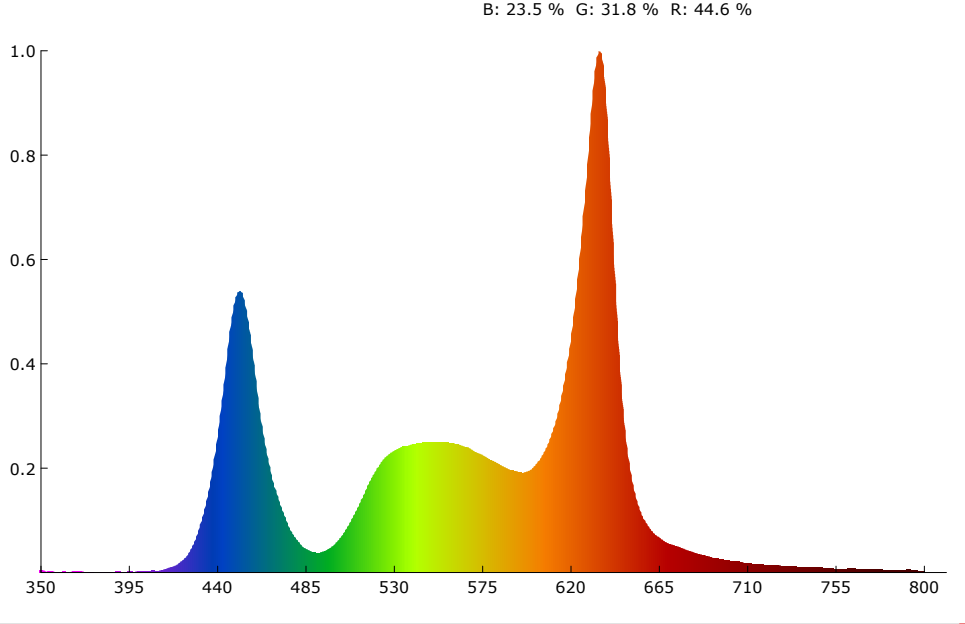
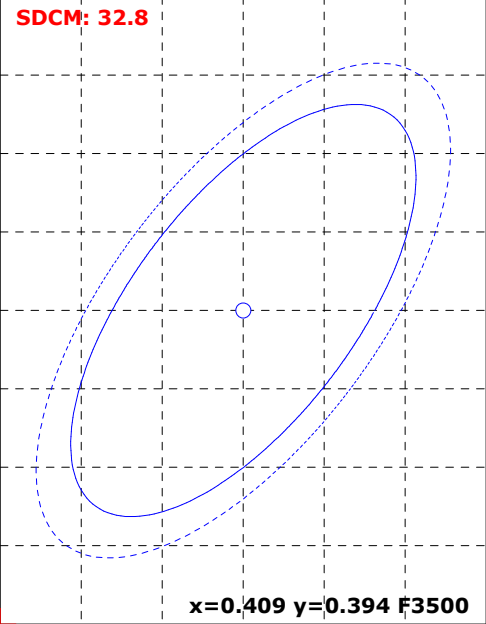


Spectrogram



SDCM



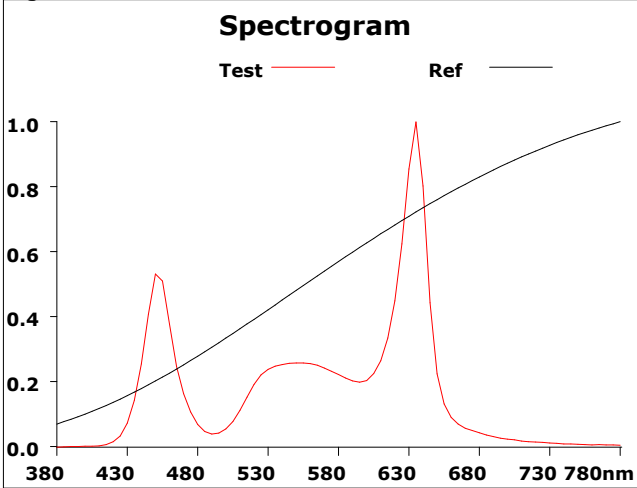
Color Parameter:

x: 0.3897	y: 0.3156	u: 0.2595	v: 0.3152	u': 0.2595	v': 0.4728
R_ratio: 44.6 %	G_ratio: 31.8 %	B_ratio: 23.5 %	RedRatio: 28.6 %	GreenRatio: 68.5 %	BlueRatio: 2.9 %
Ra: 75.7	AvgR: 69.6				
R1: 70.2	R2: 84.9	R3: 79.5	R4: 75.1	R5: 74.6	R6: 82.1
R7: 87.3	R8: 52.2	R9: -3.8	R10: 82.5	R11: 73.8	R12: 74.8
R13: 72.4	R14: 83.5	R15: 55.6			
CCT: 3118 K	Flux: 1900.298 lm	PeakWave: 635.5 nm	SDCM: 32.8		
S/P: 1.6	CentralWave: 632.9 nm	DominantWave: 0.0 nm	CentroidWave: 568.2 nm		
HalfWidth: 21.3 nm	duv: -0.03340	purity: 0.0 %	CQS: 63.4		
LER(TM-30): 270.5	Ep: 7025.2 mw	Rg: 121.3	Rf: 76.5		
Red Ep: 3078.9 mw	Near red Ep: 103.4 mw	Near infrared Ep: 11.6 mw			

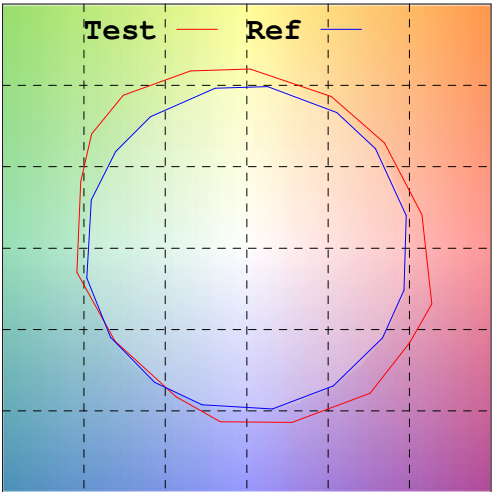
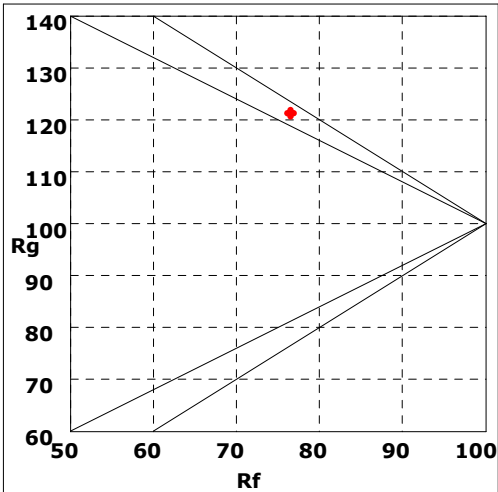
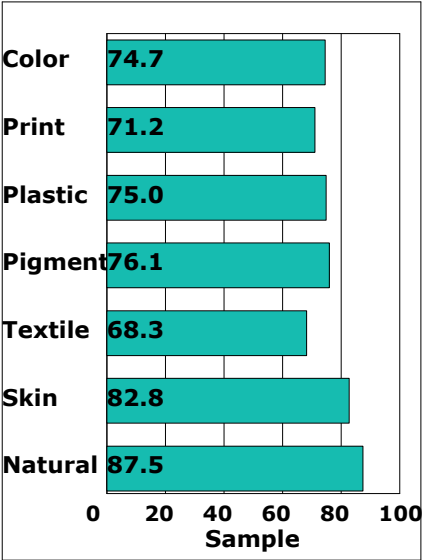
Electrical parameters:

Effic: 22.8 Lm/W	Energy: 24.8	Effi: G	
U: 220.7 V	I: 0.602 A	P: 83.510 W	Pf: 0.628

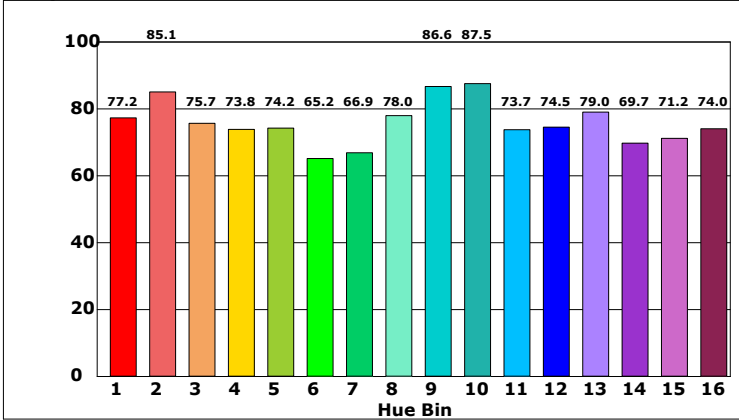
Rf: 76.5 CCT: 3118K u': 0.2595
Rg: 121.3 LER: 270.5 Duv: -0.03340 v': 0.4728



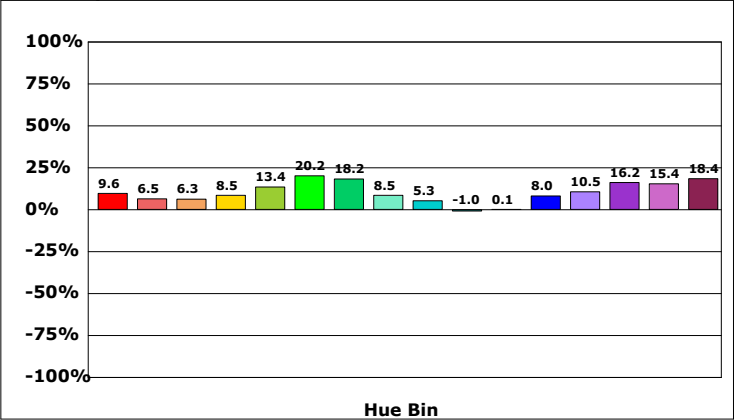
500			
Hue Bin	Rf	Chroma	Hue
1	77.2	9.6%	-1.3%
2	85.1	6.5%	-0.1%
3	75.7	6.3%	8.3%
4	73.8	8.5%	12.7%
5	74.2	13.4%	12.8%
6	65.2	20.2%	6.5%
7	66.9	18.2%	-0.9%
8	78.0	8.5%	-9.8%
9	86.6	5.3%	-4.7%
10	87.5	-1.0%	3.6%
11	73.7	0.1%	15.8%
12	74.5	8.0%	13.0%
13	79.0	10.5%	10.1%
14	69.7	16.2%	16.3%
15	71.2	15.4%	6.7%
16	74.0	18.4%	-4.9%



Rf by Bue

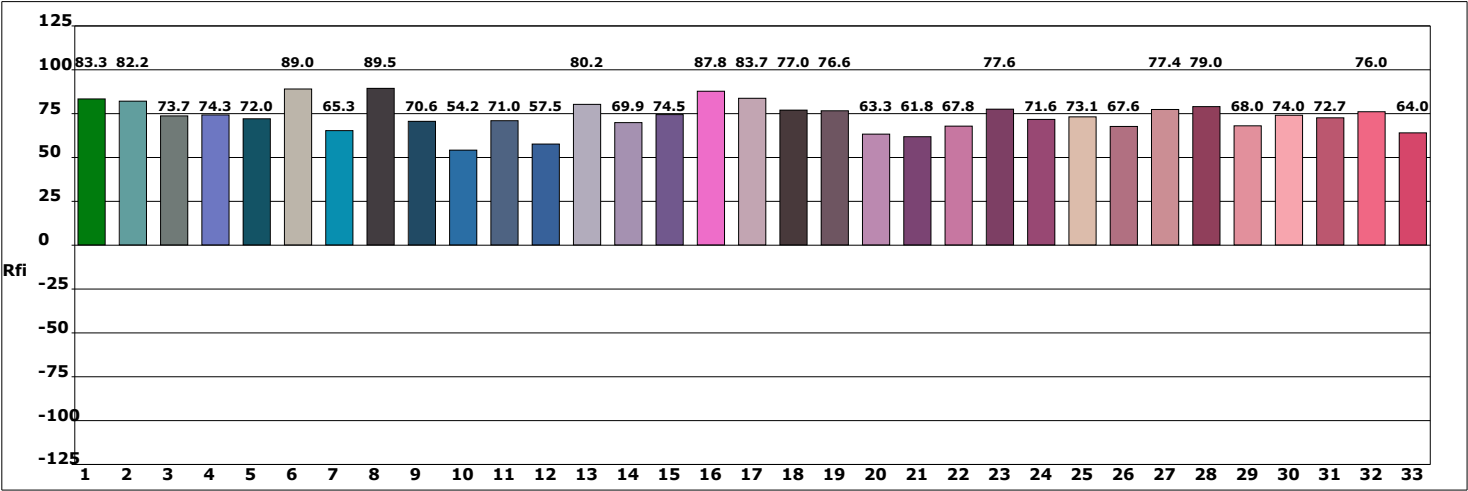
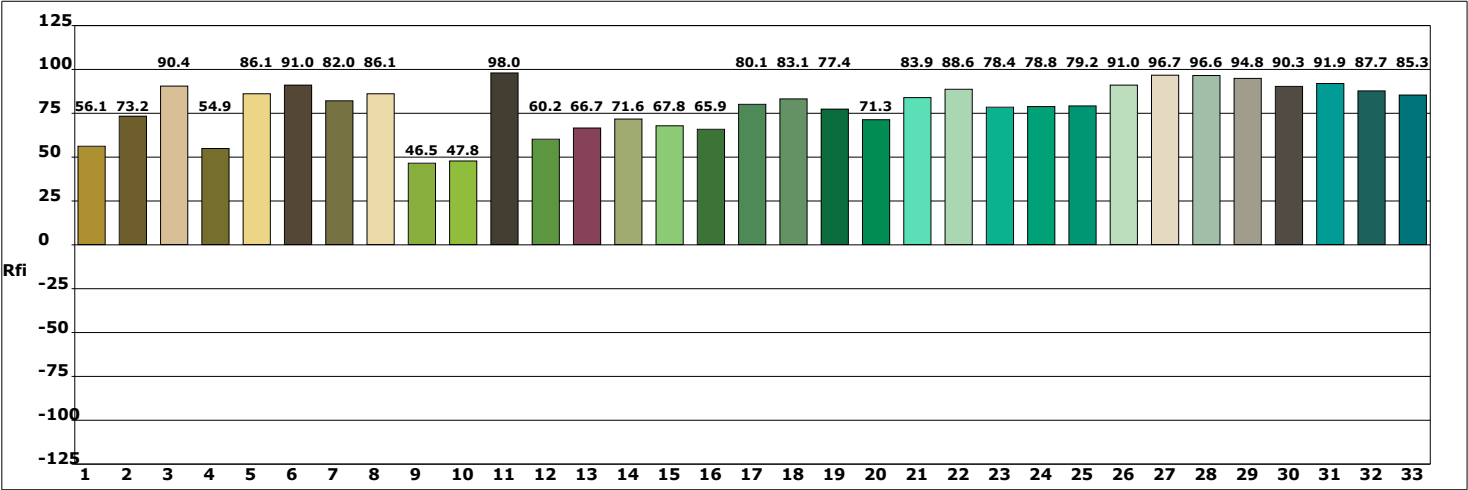
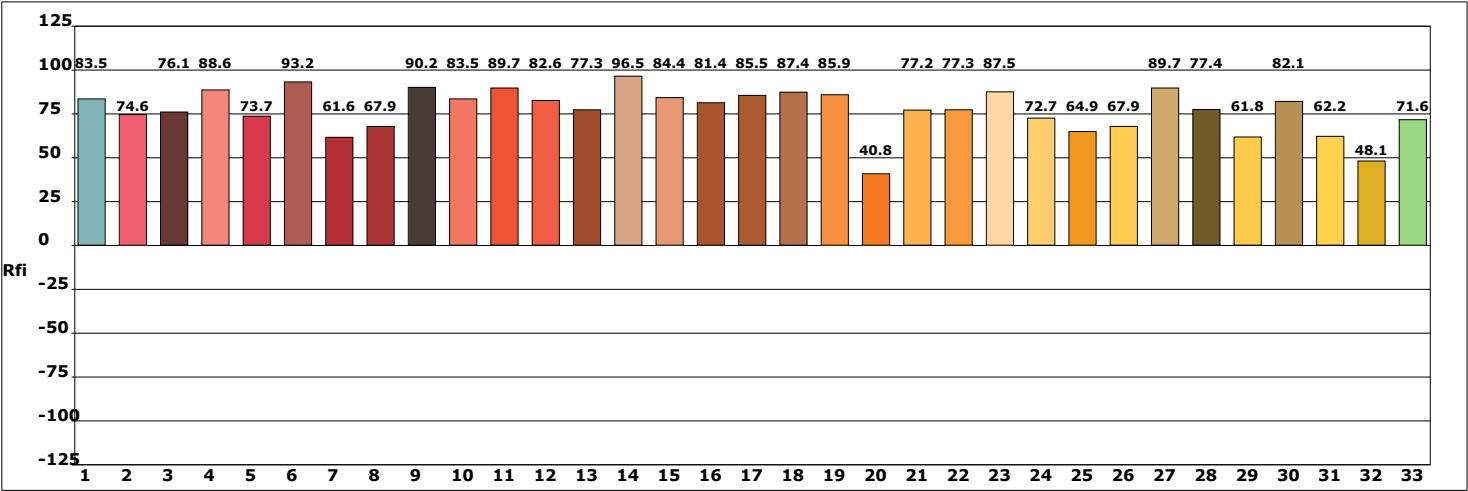


Chroma by Bue



Product model:
Product number:
Tester:
Remarks:

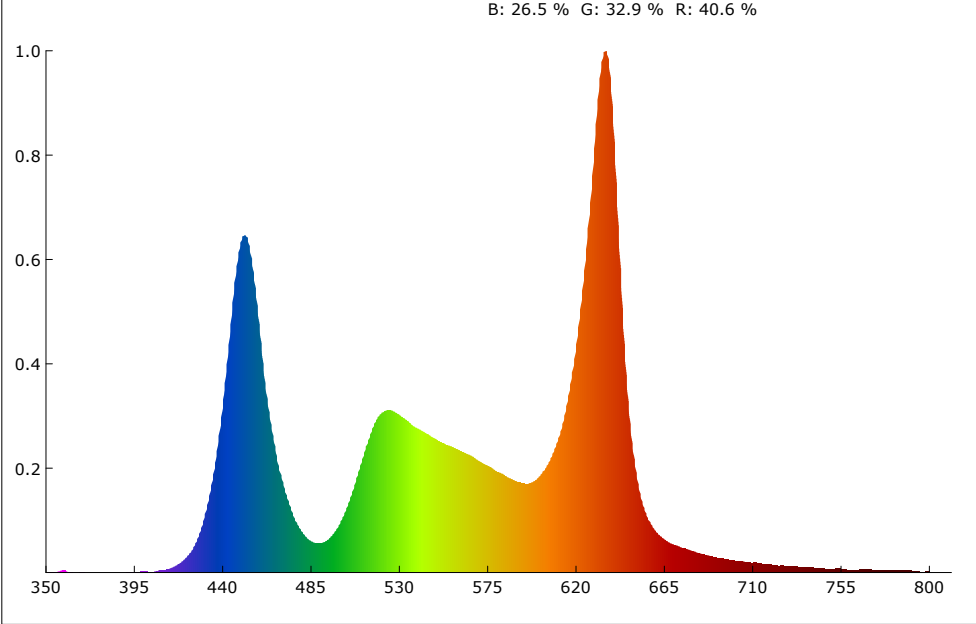
Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 03/17/14



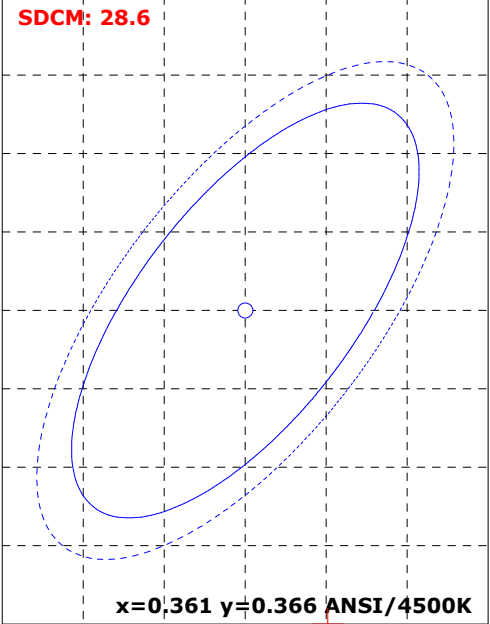
Product model:
Product number:
Tester:
Remarks:

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

Spectrogram



SDCM



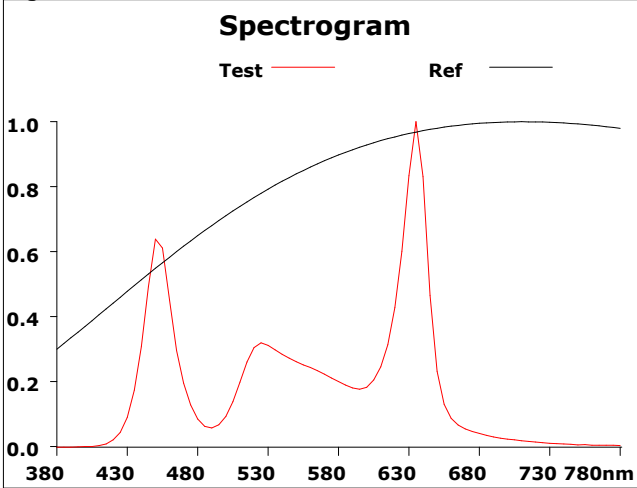
Color Parameter:

x: 0.3601	y: 0.3088	u: 0.2407	v: 0.3096	u': 0.2407	v': 0.4644
R_ratio: 40.6 %	G_ratio: 32.9 %	B_ratio: 26.5 %	RedRatio: 26.2 %	GreenRatio: 70.5 %	BlueRatio: 3.4 %
Ra: 64.8	AvgR: 56.4				
R1: 57.3	R2: 83.2	R3: 72.4	R4: 57.2	R5: 63.7	R6: 80.9
R7: 75.9	R8: 28.3				
R9: -59.0	R10: 76.5	R11: 50.2	R12: 76.6	R13: 62.9	R14: 79.7
R15: 40.6					
CCT: 4077 K	Flux: 2452.511 lm	PeakWave: 635.5 nm	SDCM: 28.6		
S/P: 2.0	CentralWave: 633.3 nm	DominantWave: 0.0 nm	CentroidWave: 560.5 nm		
HalfWidth: 21.1 nm	duv: -0.02926	purity: 0.0 %	CQS: 73.1		
LER(TM-30): 265.5	Ep: 9238.2 mw	Rg: 121.6	Rf: 76.3		
Red Ep: 3697.0 mw	Near red Ep: 120.2 mw	Near infrared Ep: 10.7 mw			

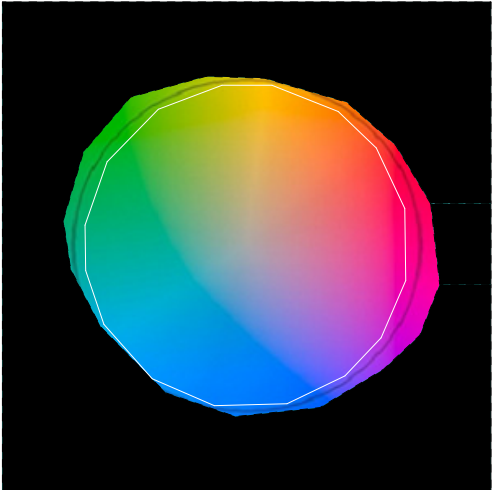
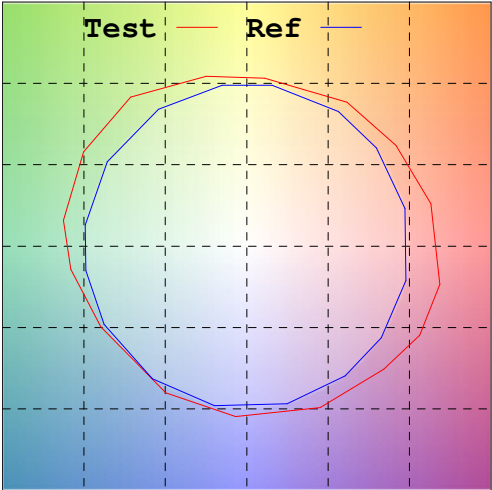
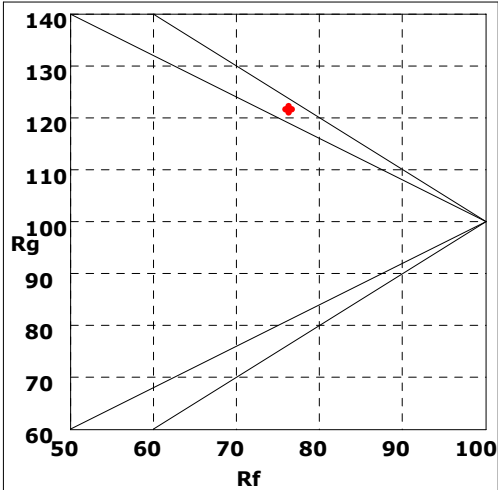
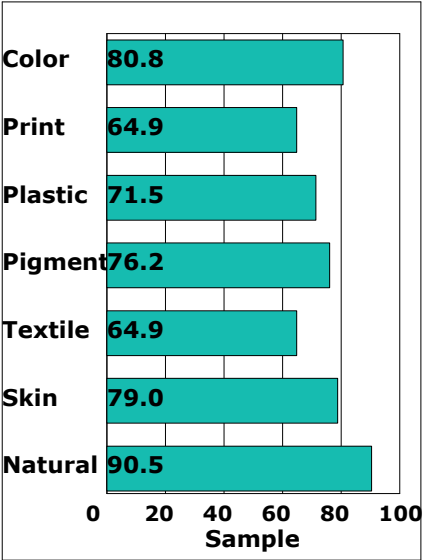
Electrical parameters:

Effic: 23.9 lm/W	Energy: 26.1	Effi: G	
U: 220.6 V	I: 0.725 A	P: 102.500 W	Pf: 0.640

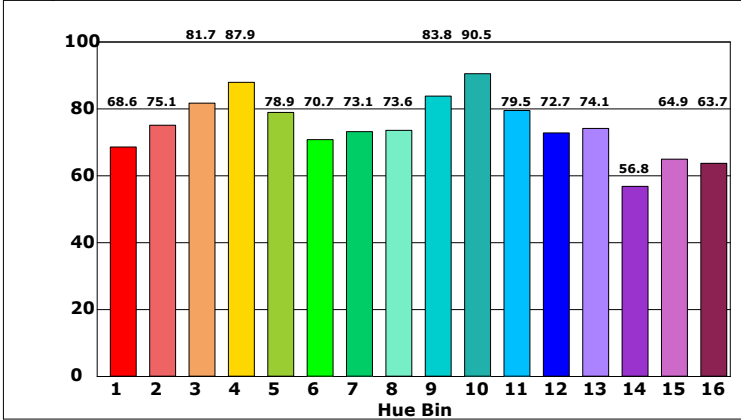
Rf: 76.3 CCT: 4077K u': 0.2407
Rg: 121.6 LER: 265.5 Duv: -0.02926 v': 0.4644



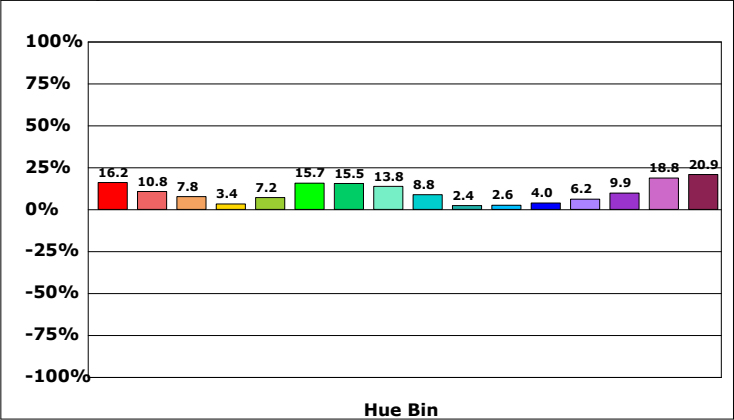
500			
Hue Bin	Rf	Chroma	Hue
1	68.6	16.2%	-0.3%
2	75.1	10.8%	-5.4%
3	81.7	7.8%	-1.3%
4	87.9	3.4%	5.2%
5	78.9	7.2%	8.6%
6	70.7	15.7%	10.0%
7	73.1	15.5%	2.9%
8	73.6	13.8%	-0.2%
9	83.8	8.8%	-2.6%
10	90.5	2.4%	0.3%
11	79.5	2.6%	11.6%
12	72.7	4.0%	14.0%
13	74.1	6.2%	19.4%
14	56.8	9.9%	22.1%
15	64.9	18.8%	14.5%
16	63.7	20.9%	1.8%



Rf by Bue

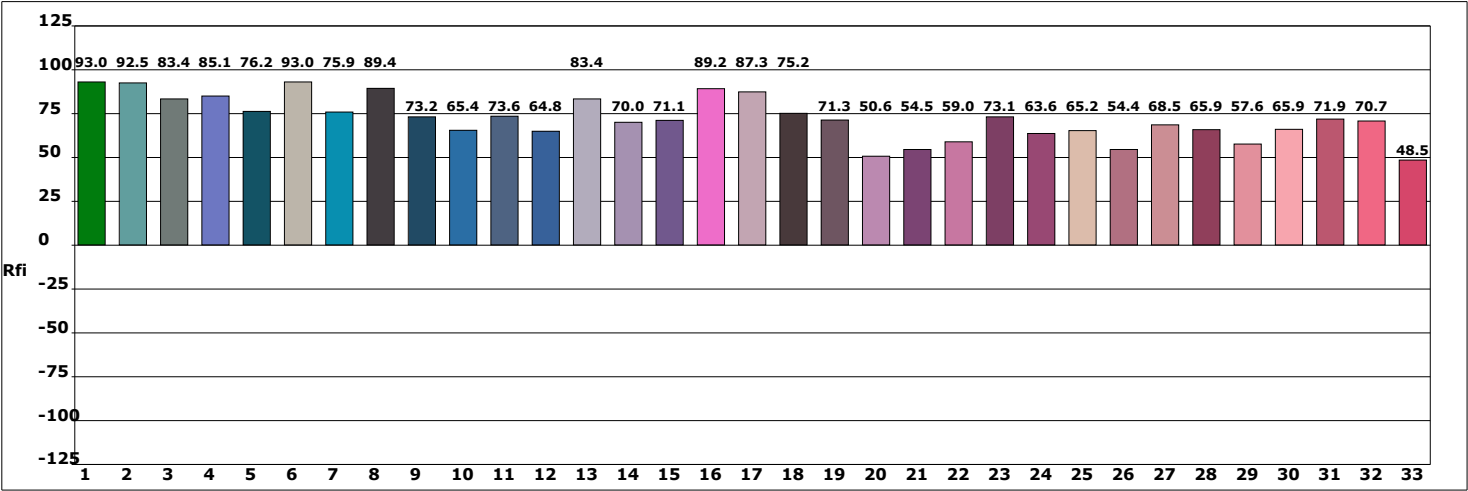
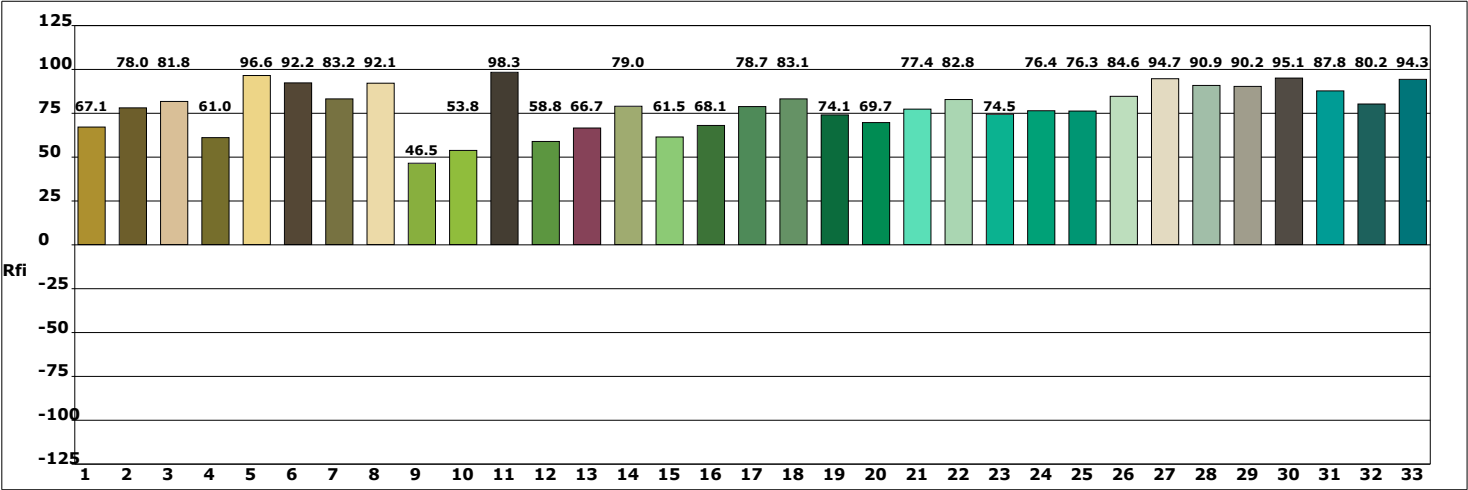
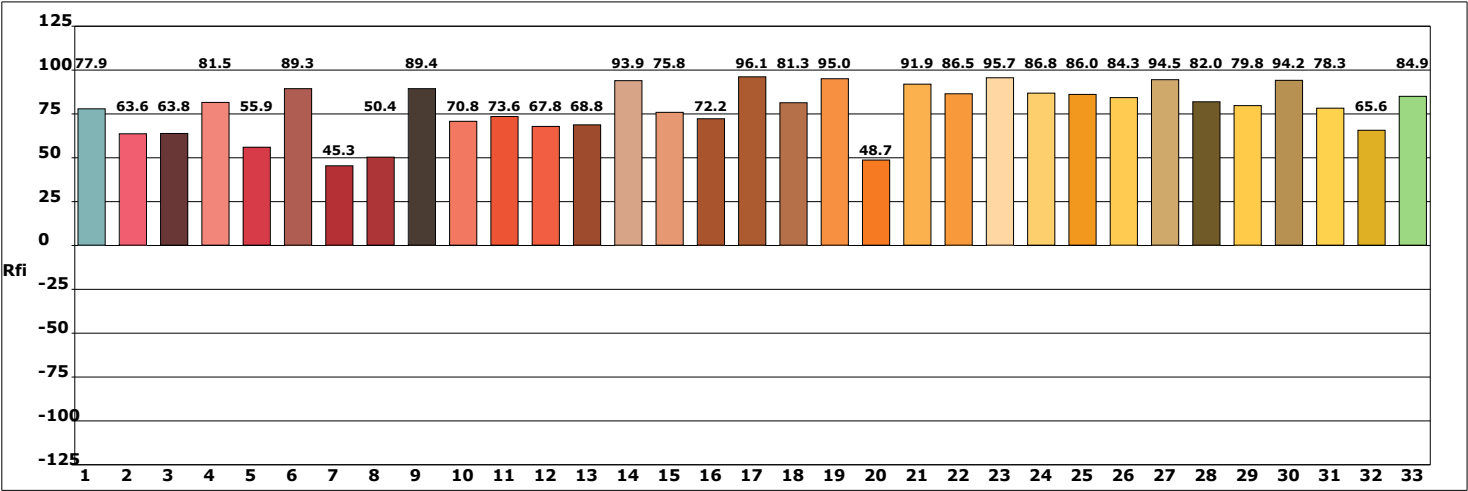


Chroma by Bue



Product model:
Product number:
Tester:
Remarks:

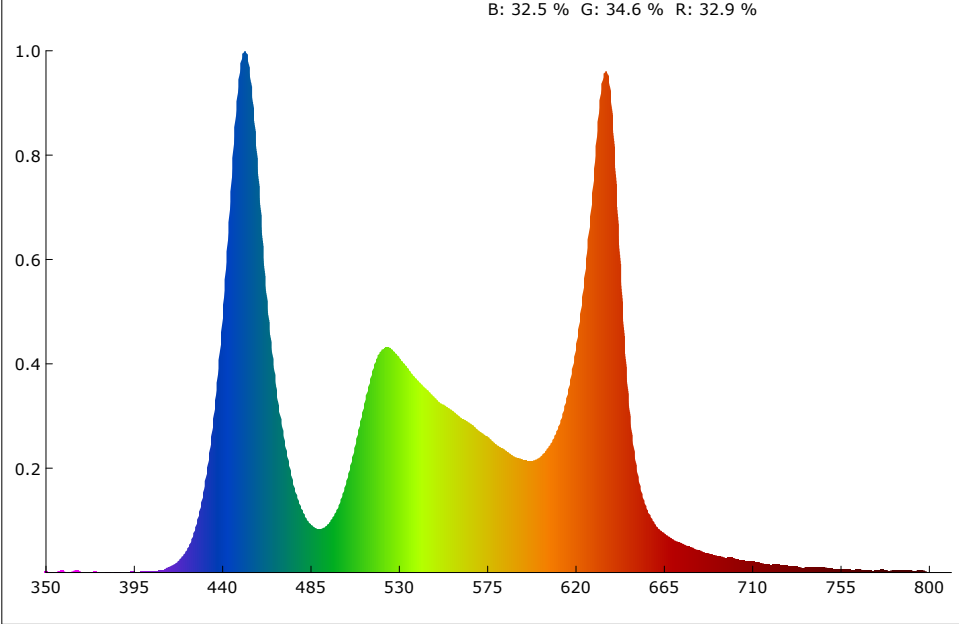
Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 03/17/14



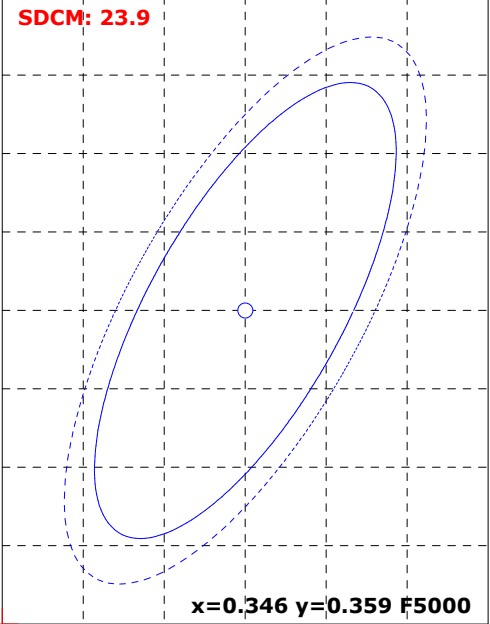
Product model:
Product number:
Tester:
Remarks:

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

Spectrogram



SDCM



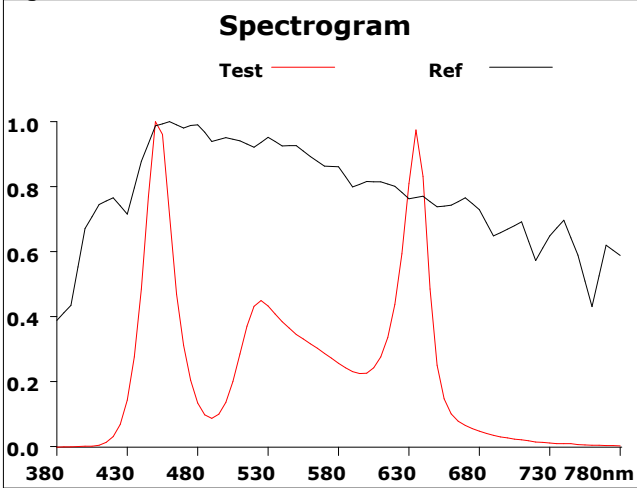
Color Parameter:

x: 0.3229	y: 0.2912	u: 0.2208	v: 0.2987	u': 0.2208	v': 0.4481		
R_ratio: 32.9 %	G_ratio: 34.6 %	B_ratio: 32.5 %	RedRatio: 21.4 %	GreenRatio: 74.4 %	BlueRatio: 4.2 %		
Ra: 68.1	AvgR: 59.3						
R1: 62.6	R2: 88.3	R3: 65.7	R4: 60.1	R5: 71.7	R6: 88.0	R7: 75.1	R8: 33.6
R9: -62.7	R10: 86.7	R11: 54.4	R12: 74.8	R13: 69.2	R14: 76.7	R15: 45.1	
CCT: 6142 K		Flux: 2422.514 lm	PeakWave: 451.9 nm	SDCM: 23.9			
S/P: 2.3		CentralWave: 452.1 nm	DominantWave: 0.0 nm	CentroidWave: 547.6 nm			
HalfWidth: 22.8 nm		duv: -0.02330	purity: 0.0 %	CQS: 79.3			
LER(TM-30): 264.0		Ep: 9177.0 mw	Rg: 118.9	Rf: 75.1			
Red Ep: 2978.7 mw		Near red Ep: 100.0 mw	Near infrared Ep: 9.5 mw				

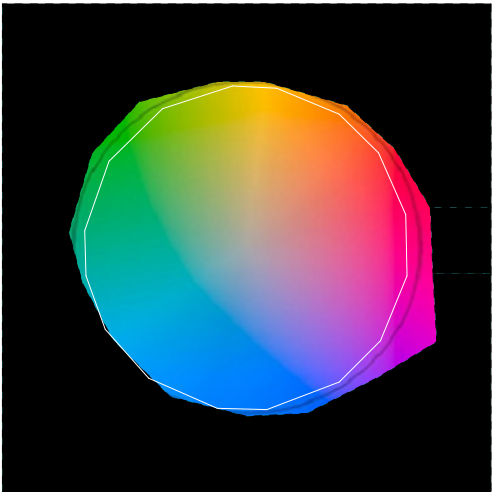
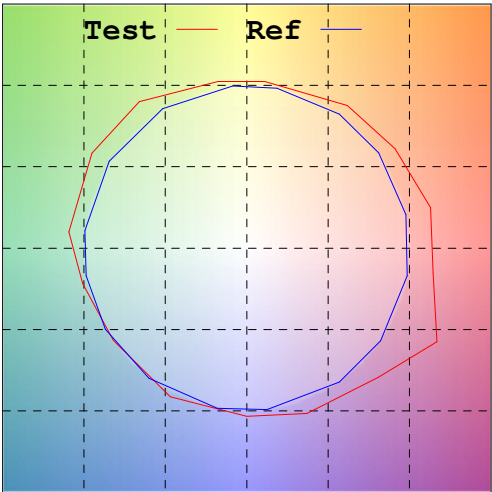
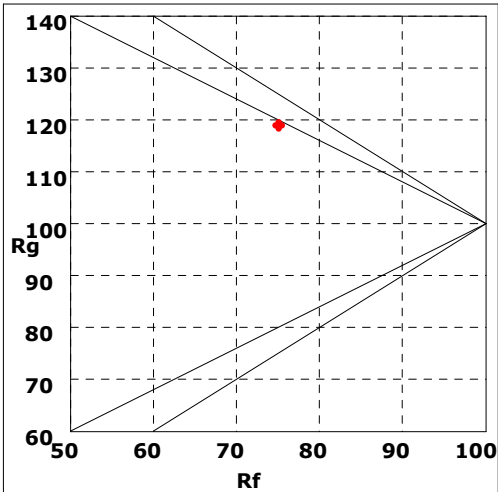
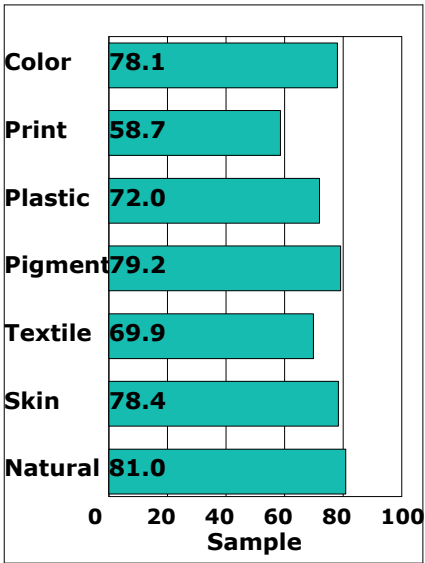
Electrical parameters:

Effic: 23.7 Lm/W	Energy: 25.8	Effi: G	
U: 220.9 V	I: 0.725 A	P: 102.300 W	Pf: 0.639

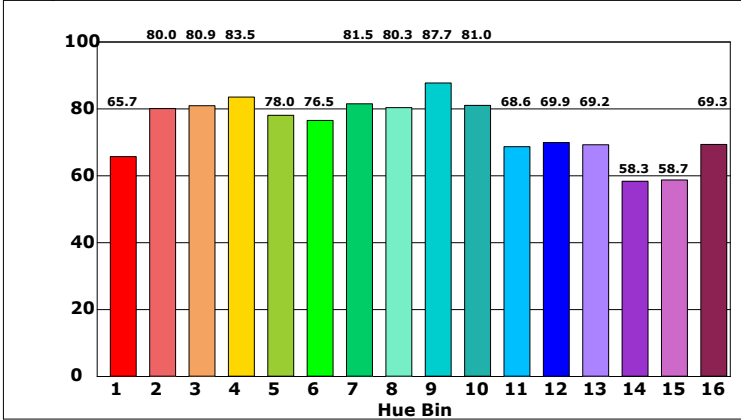
Rf: 75.1 CCT: 6142K u': 0.2208
Rg: 118.9 LER: 264.0 Duv: -0.02330 v': 0.4481



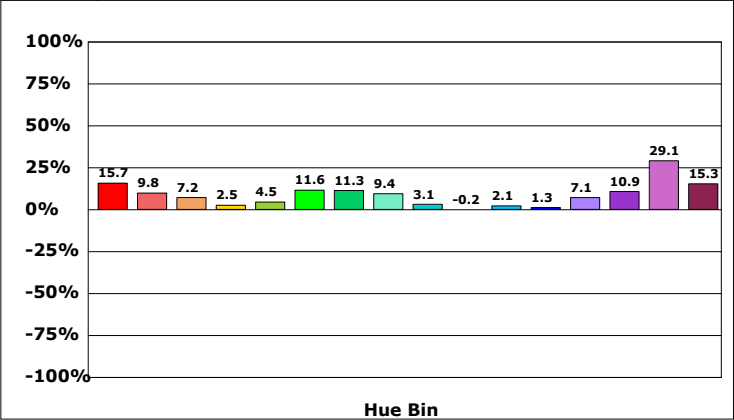
500			
Hue Bin	Rf	Chroma	Hue
1	65.7	15.7%	1.3%
2	80.0	9.8%	-3.4%
3	80.9	7.2%	-1.0%
4	83.5	2.5%	8.0%
5	78.0	4.5%	8.4%
6	76.5	11.6%	9.5%
7	81.5	11.3%	1.8%
8	80.3	9.4%	2.7%
9	87.7	3.1%	4.3%
10	81.0	-0.2%	8.5%
11	68.6	2.1%	17.2%
12	69.9	1.3%	18.8%
13	69.2	7.1%	23.8%
14	58.3	10.9%	21.6%
15	58.7	29.1%	18.7%
16	69.3	15.3%	4.7%



Rf by Hue

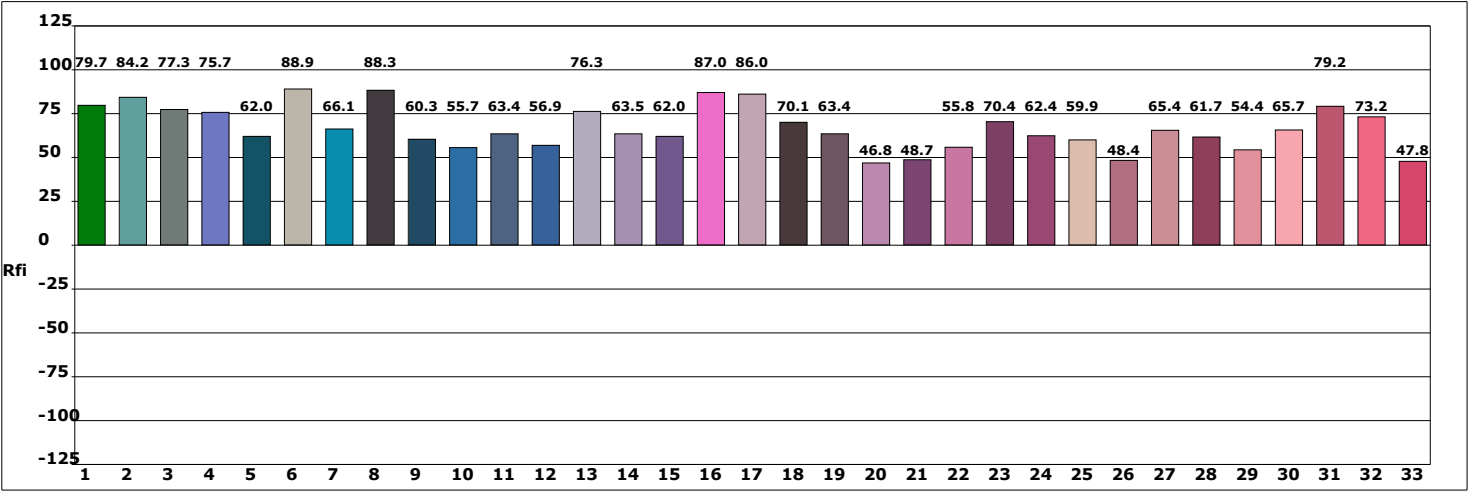
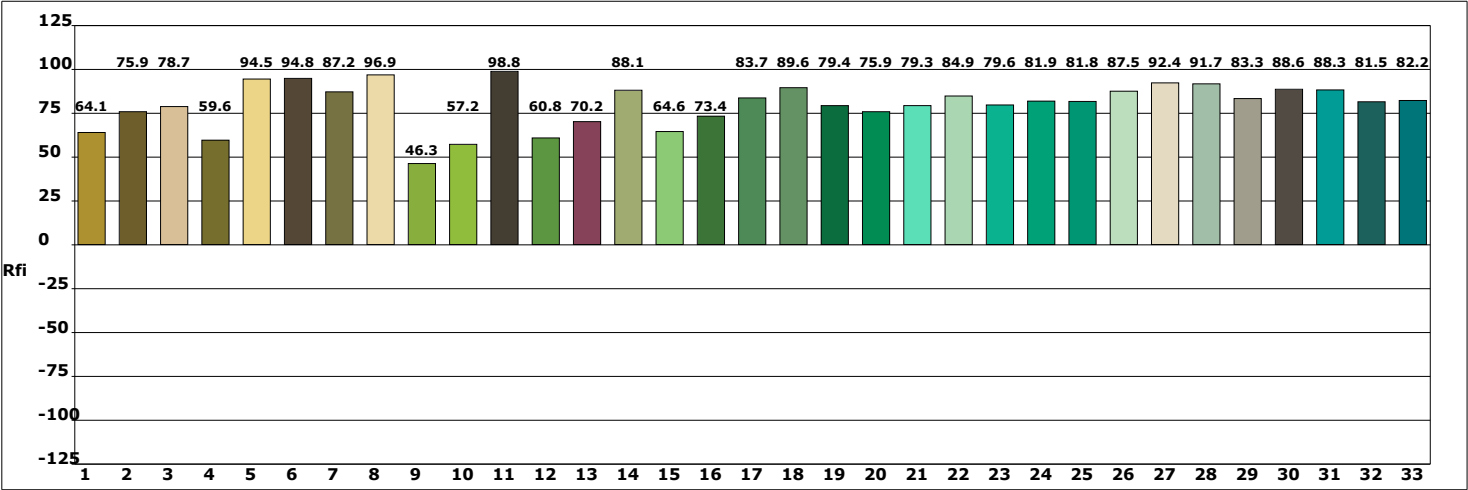
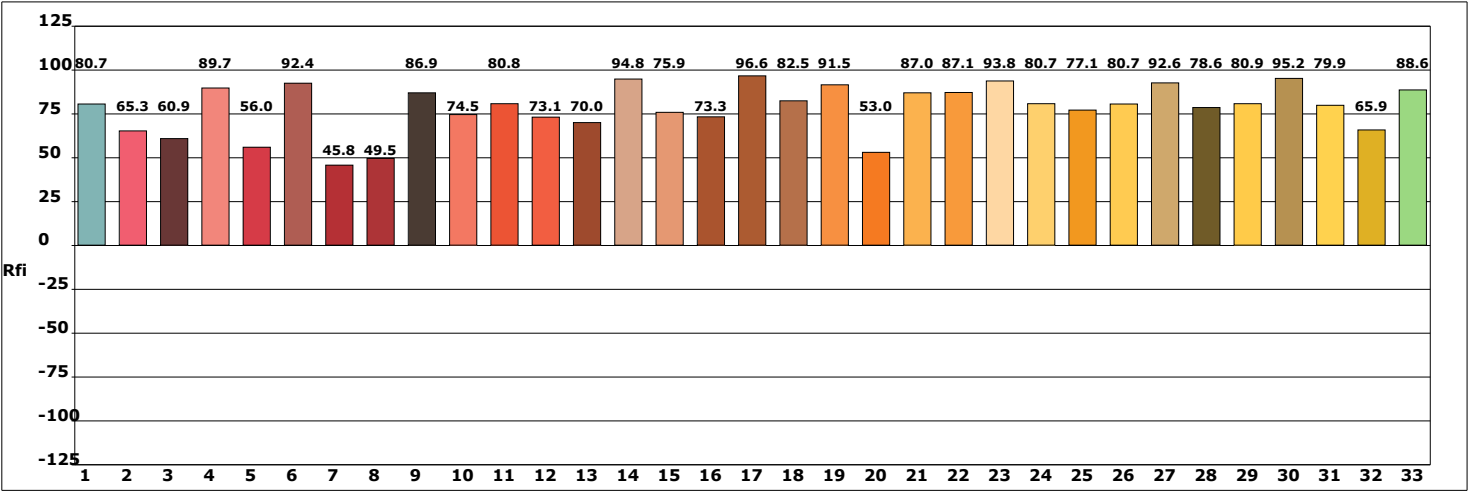


Chroma by Hue



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