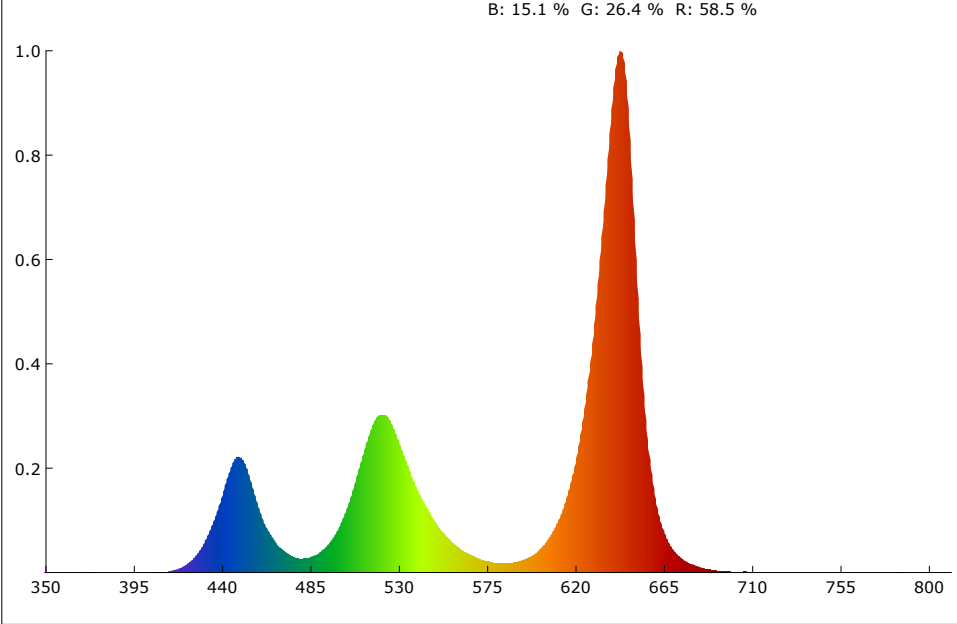
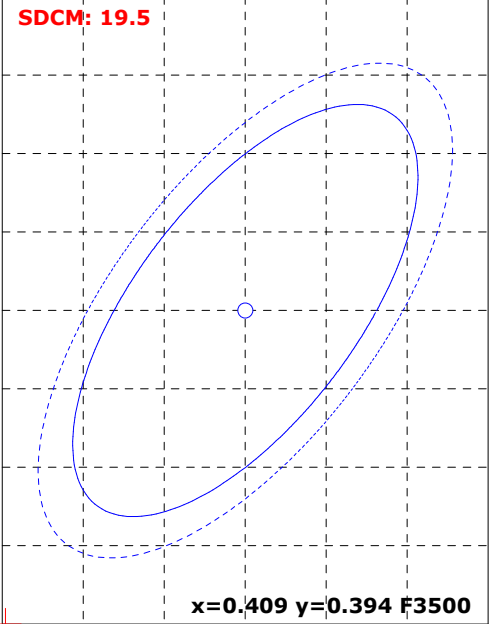


Spectrogram



SDCM



Color Parameter:

x: 0.3952 y: 0.3461 u: 0.2484 v: 0.3264 u': 0.2484 v': 0.4896
R_ratio: 58.5 % G_ratio: 26.4 % B_ratio: 15.1 % RedRatio: 34.6 % GreenRatio: 63.3 % BlueRatio: 2.1 %

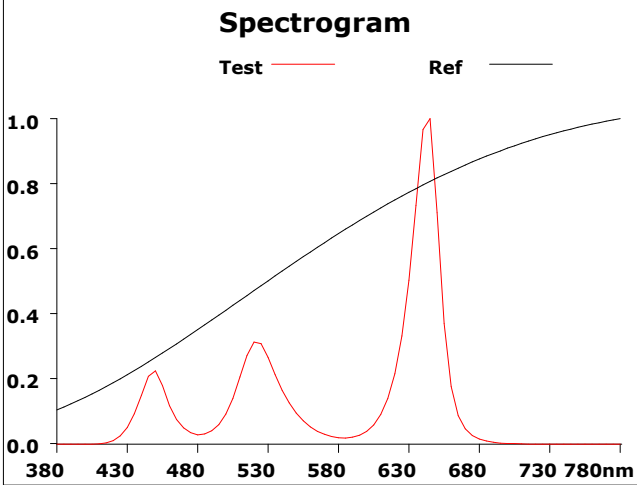
Ra: 7.0 AvgR: -1.7
R1: -10.8 R2: 57.2 R3: 53.7 R4: -27.5 R5: -5.2 R6: 44.2 R7: 26.0 R8: -81.4
R9: -99.0 R10: 7.9 R11: -56.3 R12: 22.0 R13: 1.9 R14: 68.8 R15: -27.2

CCT: 3325 K Flux: 332.609 lm PeakWave: 643.3 nm SDCM: 19.5
S/P: 2.1 CentralWave: 641.3 nm DominantWave: 596.2 nm CentroidWave: 583.2 nm
HalfWidth: 21.8 nm duv: -0.01863 purity: 22.4 % CQS: 67.2
LER(TM-30): 221.9 Ep: 1498.6 mw Rg: 135.0 Rf: 42.9
Red Ep: 875.5 mw Near red Ep: 1.0 mw Near infrared Ep: 0.1 mw

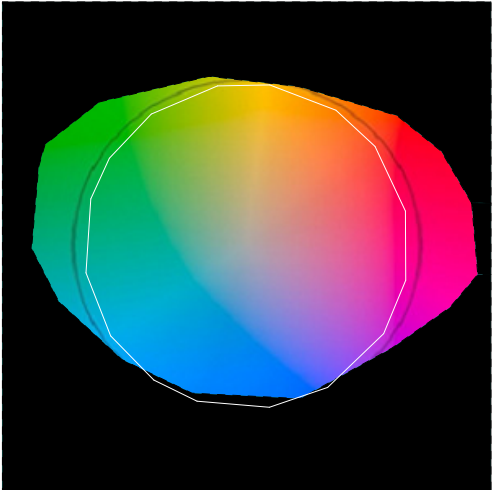
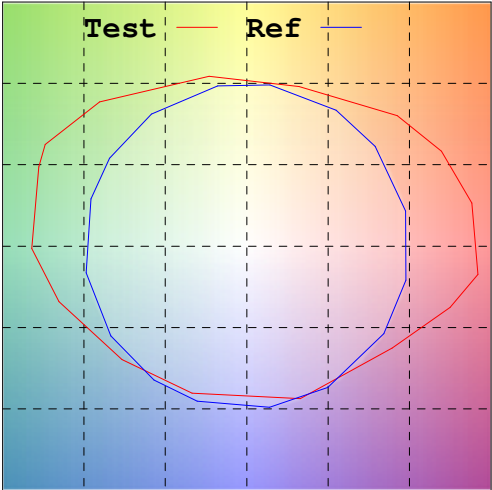
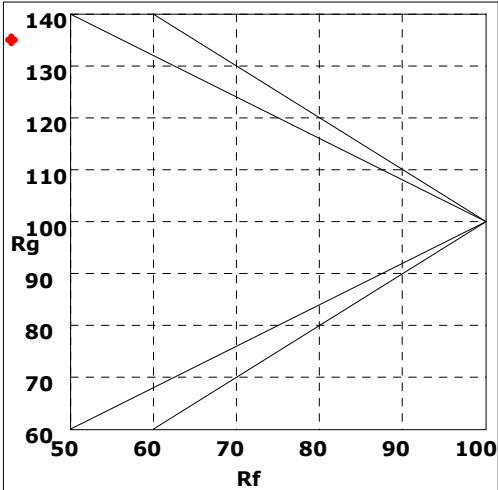
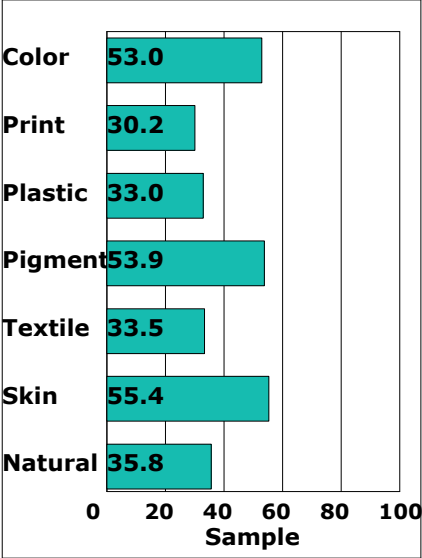
Electrical parameters:

Effic: 6.2 lm/W Energy: 6.7 Effi: G
U: 220.4 V I: 0.401 A P: 53.910 W Pf: 0.610

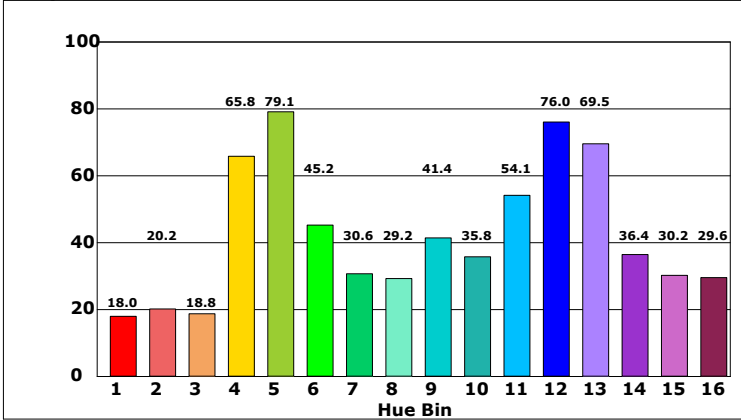
Rf: 42.9 CCT: 3325K u': 0.2484
Rg: 135.0 LER: 221.9 Duv: -0.01863 v': 0.4896



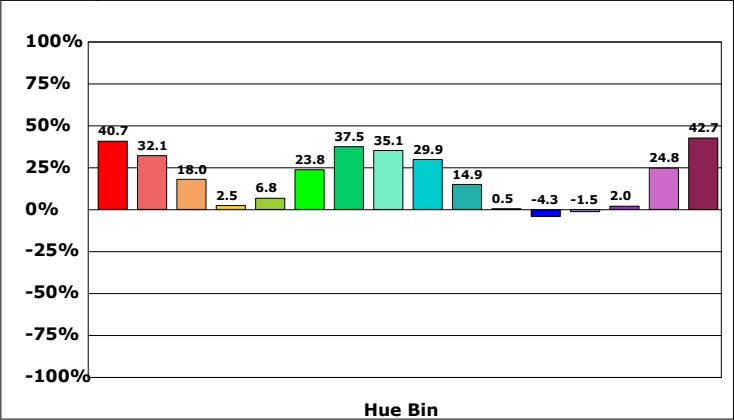
500			
Hue Bin	Rf	Chroma	Hue
1	18.0	40.7%	-3.1%
2	20.2	32.1%	-25.1%
3	18.8	18.0%	-33.2%
4	65.8	2.5%	-17.8%
5	79.1	6.8%	4.0%
6	45.2	23.8%	22.5%
7	30.6	37.5%	14.9%
8	29.2	35.1%	-13.0%
9	41.4	29.9%	-21.1%
10	35.8	14.9%	-35.1%
11	54.1	0.5%	-23.4%
12	76.0	-4.3%	-4.2%
13	69.5	-1.5%	19.6%
14	36.4	2.0%	46.2%
15	30.2	24.8%	36.1%
16	29.6	42.7%	12.0%



Rf by Bue

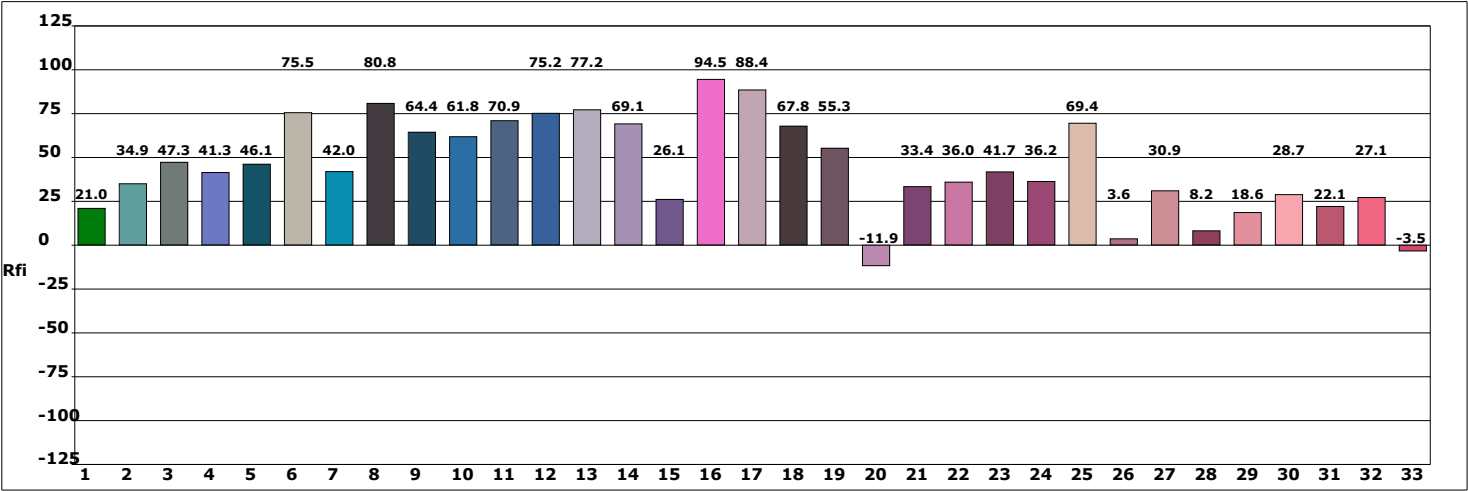
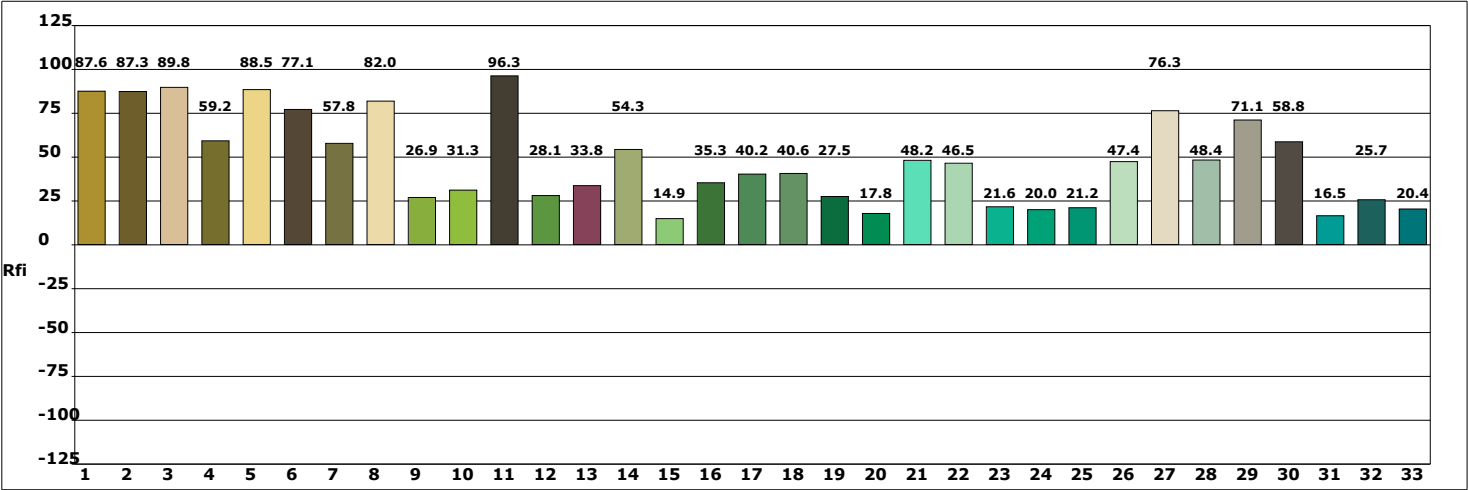
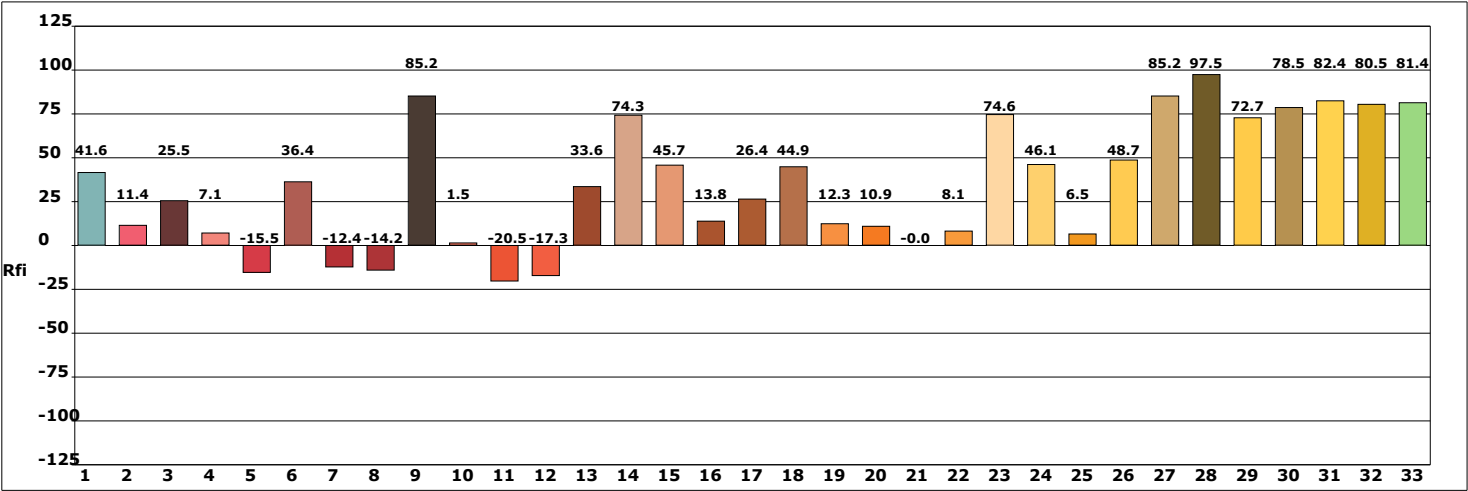


Chroma by Bue

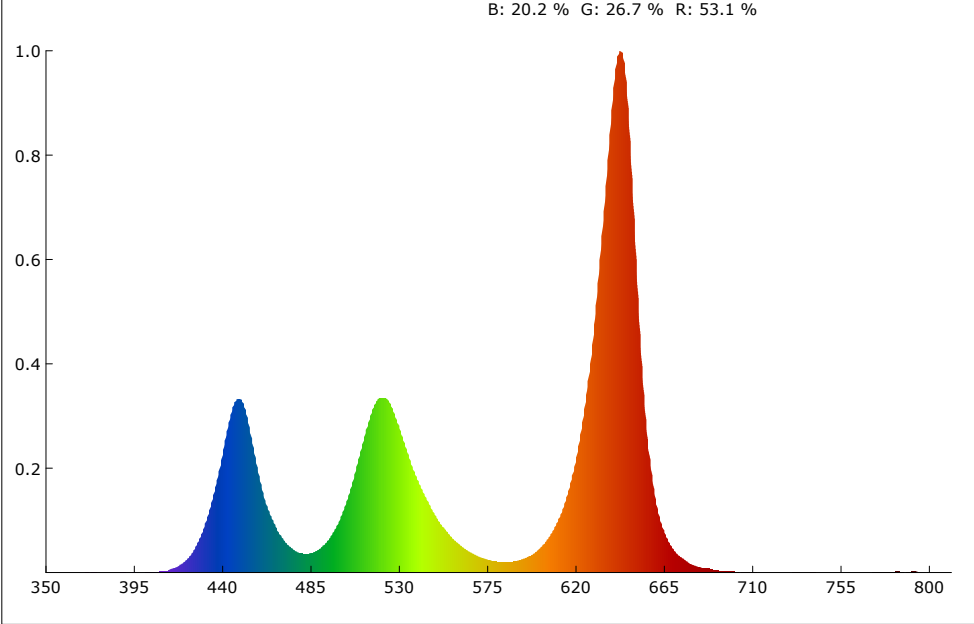


Product model:
Product number:
Tester:
Remarks:

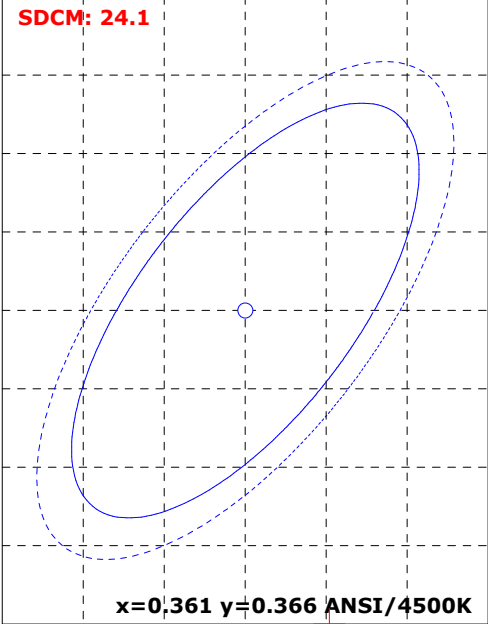
Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 03/17/14



Spectrogram



SDCM



Color Parameter:

x: 0.3602 y: 0.3178 u: 0.2365 v: 0.3129 u': 0.2365 v': 0.4694
R_ratio: 53.1 % G_ratio: 26.7 % B_ratio: 20.2 % RedRatio: 32.0 % GreenRatio: 65.2 % BlueRatio: 2.8 %

Ra: 7.8 AvgR: 0.1
R1: -9.5 R2: 59.6 R3: 48.2 R4: -25.2 R5: -0.6 R6: 50.6 R7: 25.4 R8: -85.8
R9: -99.0 R10: 14.1 R11: -50.6 R12: 38.0 R13: 4.7 R14: 65.5 R15: -33.4

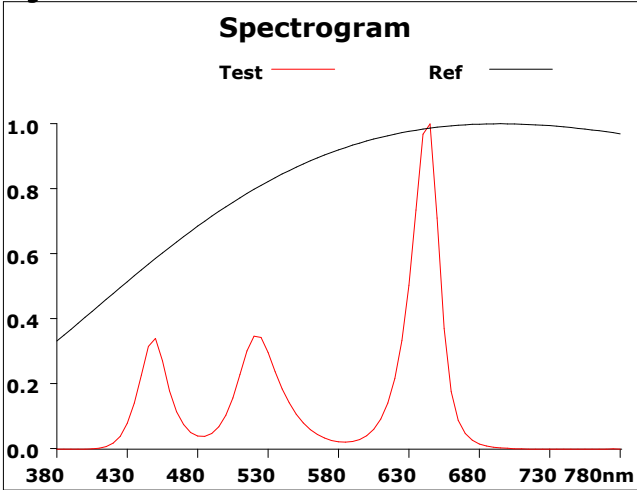
CCT: 4173 K Flux: 350.480 lm PeakWave: 643.1 nm SDCM: 24.1
S/P: 2.4 CentralWave: 641.3 nm DominantWave: 0.0 nm CentroidWave: 573.4 nm
HalfWidth: 21.8 nm duv: -0.02412 purity: 0.0 % CQS: 70.2
LER(TM-30): 218.1 Ep: 1607.1 mw Rg: 136.2 Rf: 44.4
Red Ep: 852.4 mw Near red Ep: 1.4 mw Near infrared Ep: 0.9 mw

Electrical parameters:

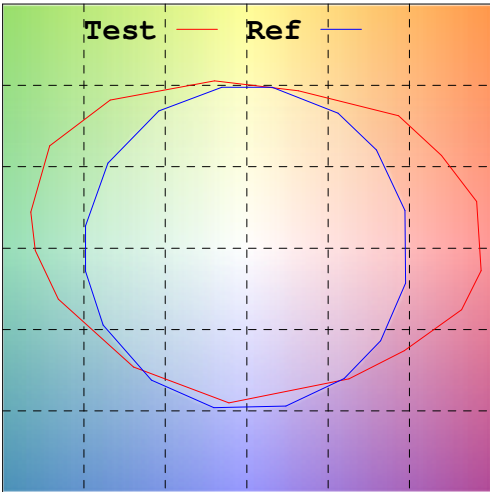
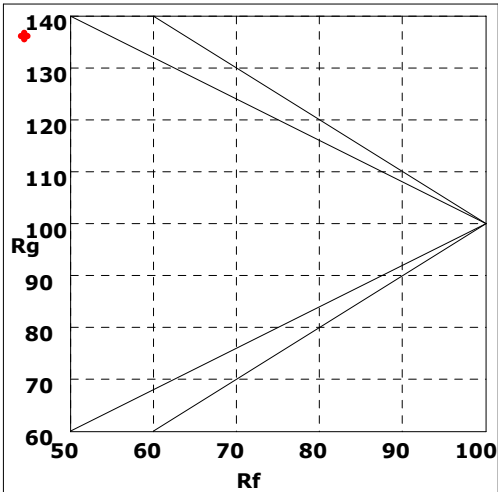
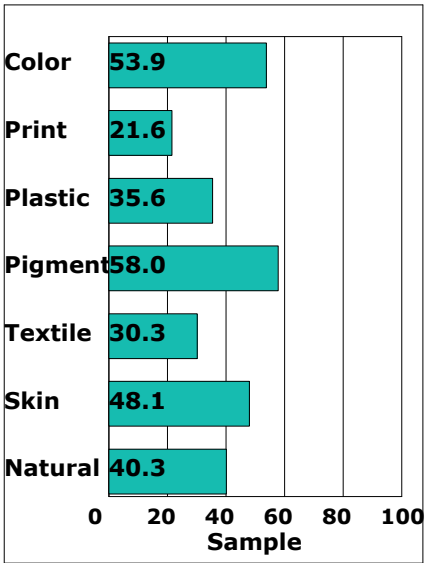
Effic: 6.3 lm/W Energy: 6.8 Effi: G
U: 220.4 V I: 0.413 A P: 55.950 W Pf: 0.614

Product model: Manufacturer: Guangzhou Hotion Technology Co.,
Product number: Test unit:
Tester: Date of observation: 03/17/14
Remarks:

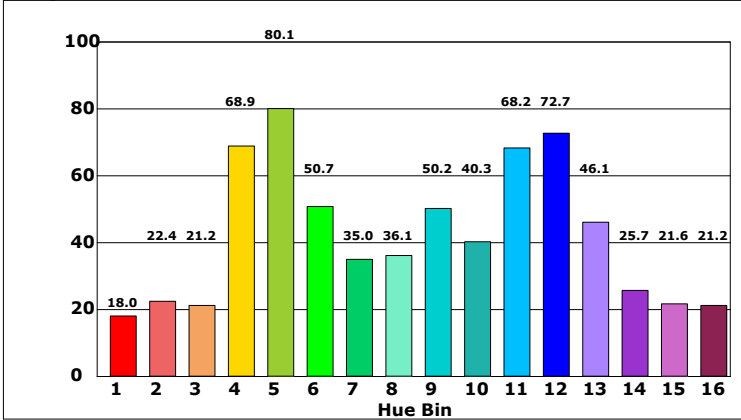
Rf: 44.4 CCT: 4173K u': 0.2365
Rg: 136.2 LER: 218.1 Duv: -0.02412 v': 0.4694



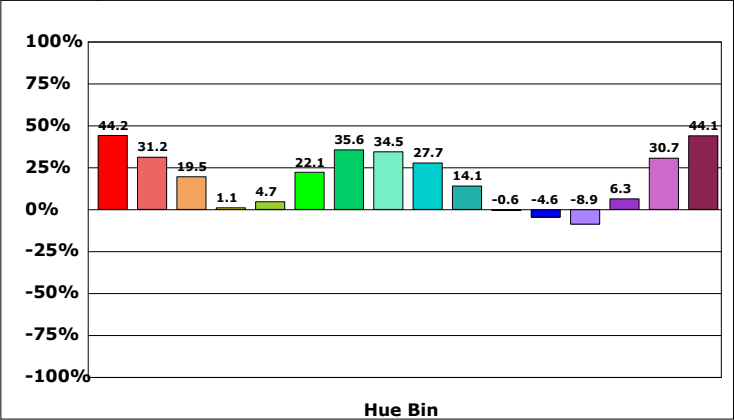
500			
Hue Bin	Rf	Chroma	Hue
1	18.0	44.2%	-3.1%
2	22.4	31.2%	-24.9%
3	21.2	19.5%	-31.8%
4	68.9	1.1%	-16.3%
5	80.1	4.7%	3.7%
6	50.7	22.1%	21.1%
7	35.0	35.6%	11.0%
8	36.1	34.5%	-1.8%
9	50.2	27.7%	-18.6%
10	40.3	14.1%	-28.6%
11	68.2	-0.6%	-13.6%
12	72.7	-4.6%	8.6%
13	46.1	-8.9%	41.2%
14	25.7	6.3%	40.3%
15	21.6	30.7%	43.5%
16	21.2	44.1%	16.5%



Rf by Bue

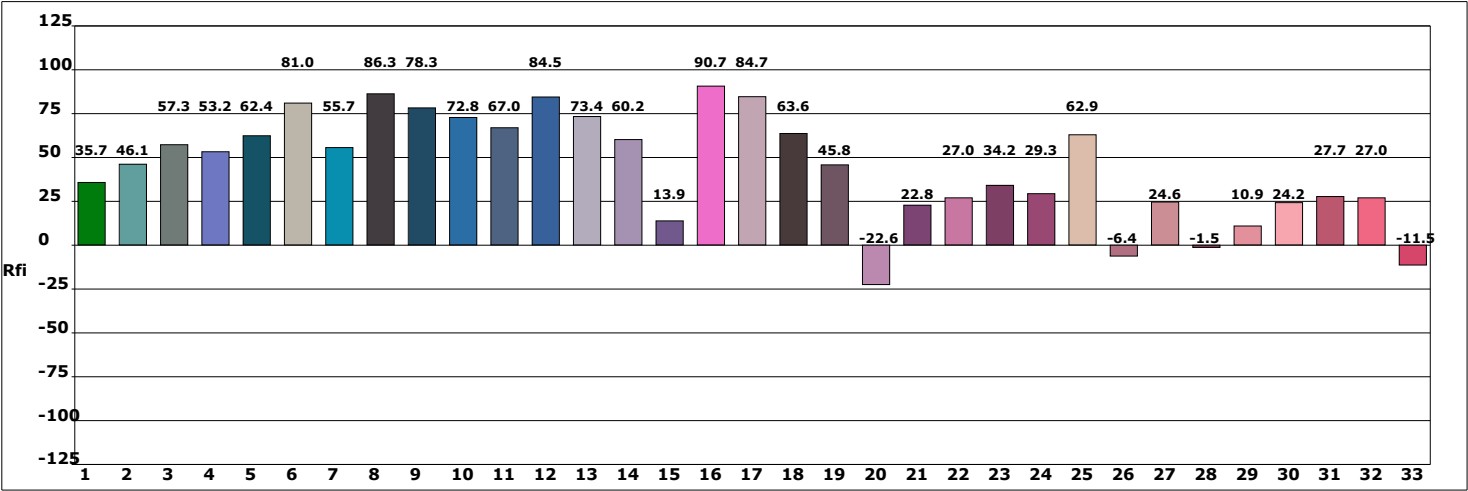
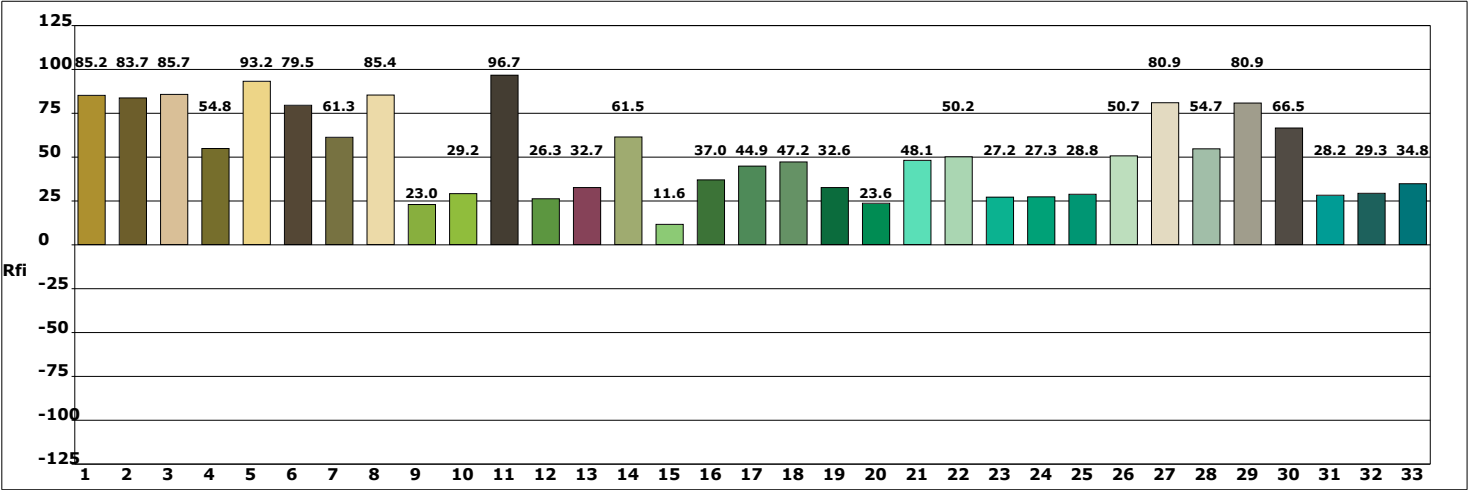
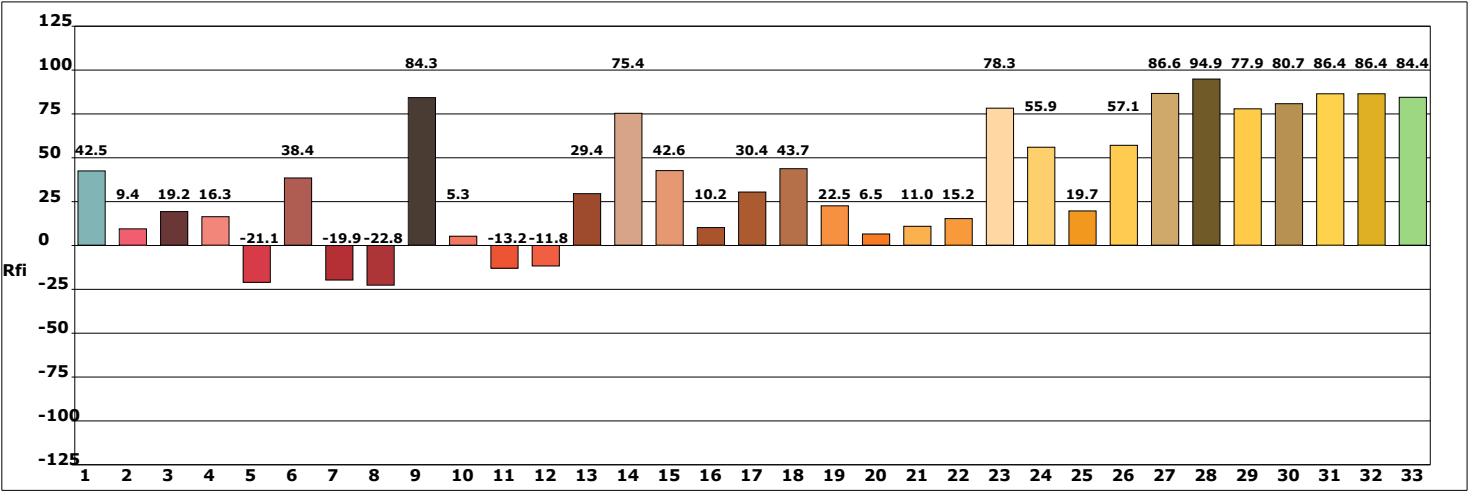


Chroma by Bue



Product model:
Product number:
Tester:
Remarks:

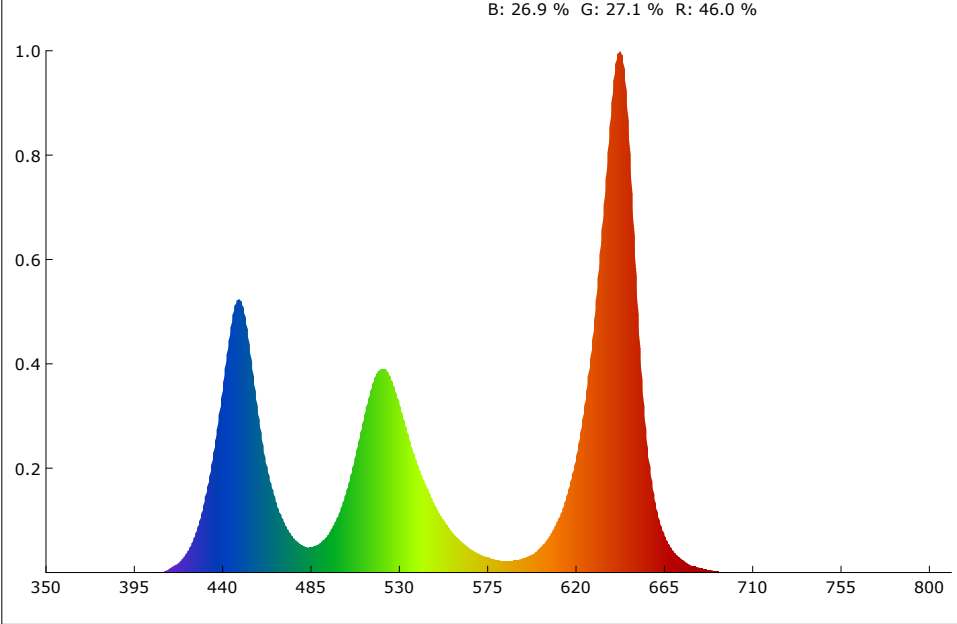
Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 03/17/14



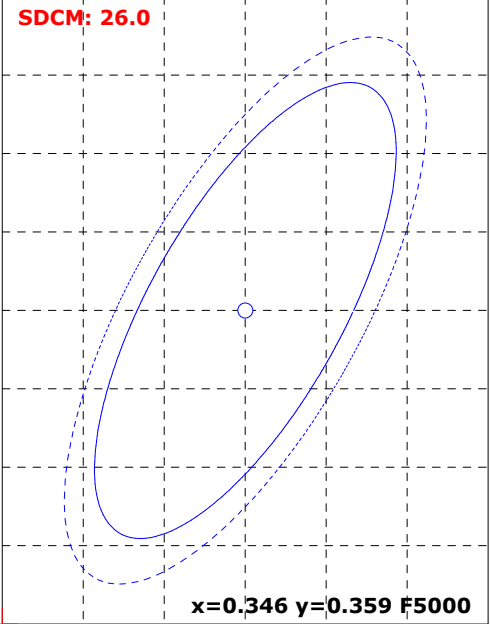
Product model:
Product number:
Tester:
Remarks:

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

Spectrogram



SDCM



Color Parameter:

x: 0.3206 y: 0.2852 u: 0.2218 v: 0.2960 u': 0.2218 v': 0.4440
R_ratio: 46.0 % G_ratio: 27.1 % B_ratio: 26.9 % RedRatio: 28.7 % GreenRatio: 67.5 % BlueRatio: 3.8 %

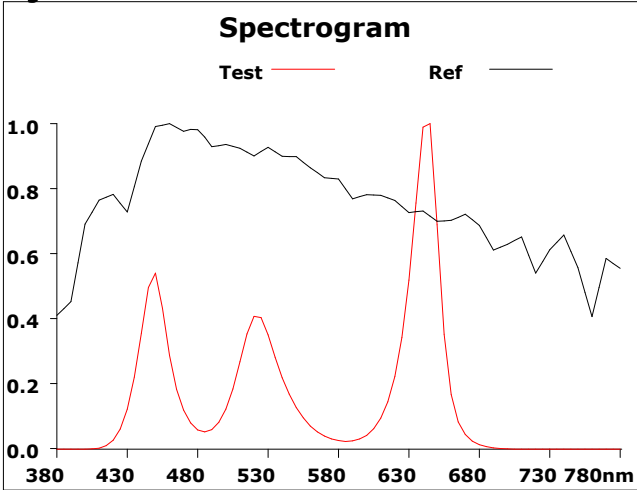
Ra: 9.2 AvgR: 2.7
R1: -8.4 R2: 63.5 R3: 38.4 R4: -24.6 R5: 6.5 R6: 60.9 R7: 25.0 R8: -87.7
R9: -99.0 R10: 25.3 R11: -47.7 R12: 59.9 R13: 7.9 R14: 59.9 R15: -39.8

CCT: 6366 K	Flux: 352.096 lm	PeakWave: 642.9 nm	SDCM: 26.0
S/P: 2.7	CentralWave: 641.1 nm	DominantWave: 0.0 nm	CentroidWave: 559.8 nm
HalfWidth: 21.6 nm	duv: -0.02573	purity: 0.0 %	CQS: 73.3
LER(TM-30): 214.1	Ep: 1644.5 mw	Rg: 138.9	Rf: 45.0
Red Ep: 756.8 mw	Near red Ep: 0.1 mw	Near infrared Ep: 0.0 mw	

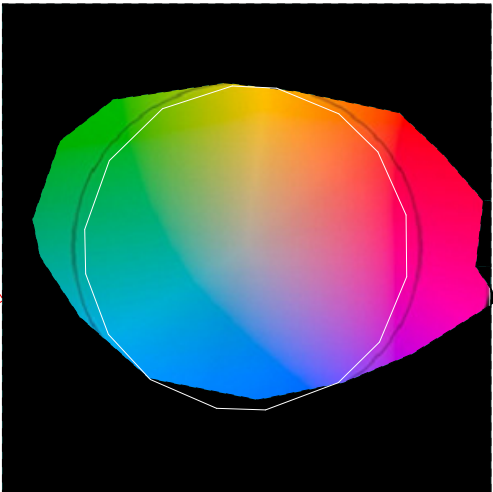
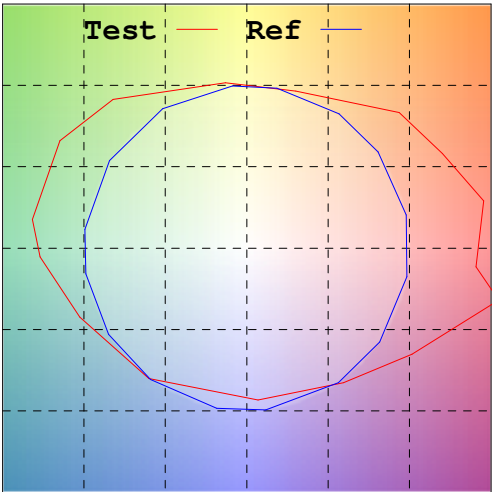
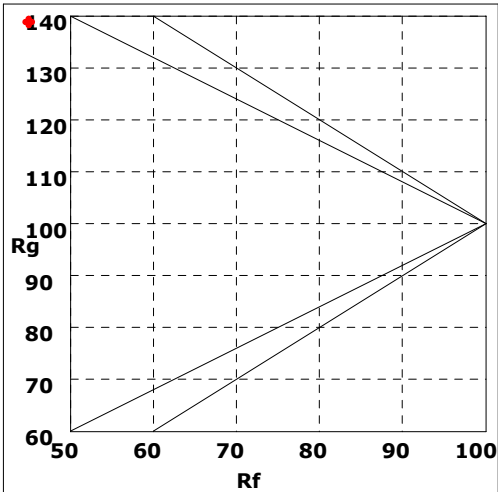
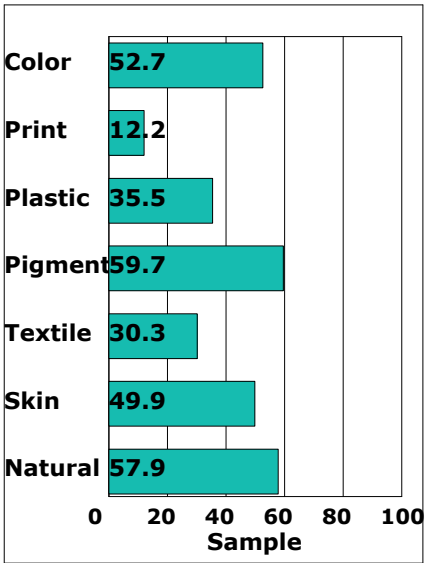
Electrical parameters:

Effic: 6.4 Lm/W	Energy: 7.0	Effi: G	
U: 220.3 V	I: 0.410 A	P: 55.020 W	Pf: 0.609

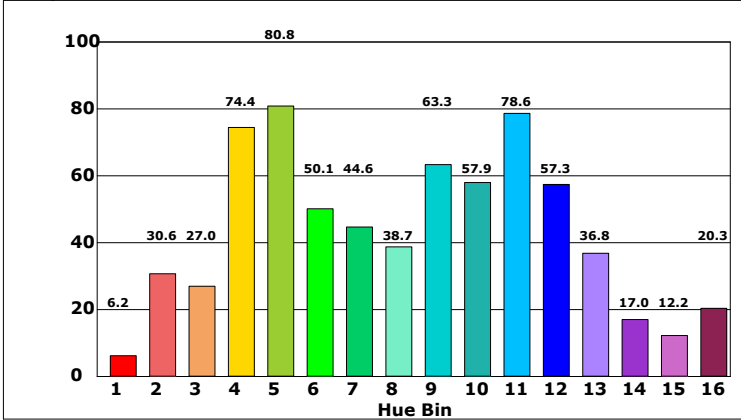
Rf: 45.0 CCT: 6366K u': 0.2218
Rg: 138.9 LER: 214.1 Duv: -0.02573 v': 0.4440



500			
Hue Bin	Rf	Chroma	Hue
1	6.2	48.4%	-0.7%
2	30.6	32.3%	-22.9%
3	27.0	21.4%	-30.3%
4	74.4	0.5%	-11.7%
5	80.8	2.8%	3.8%
6	50.1	21.6%	22.3%
7	44.6	32.1%	6.9%
8	38.7	32.9%	0.2%
9	63.3	25.5%	-15.8%
10	57.9	8.8%	-18.7%
11	78.6	-0.0%	-1.2%
12	57.3	-9.9%	23.9%
13	36.8	-6.9%	50.0%
14	17.0	10.6%	47.3%
15	12.2	46.5%	62.2%
16	20.3	40.4%	14.2%



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

