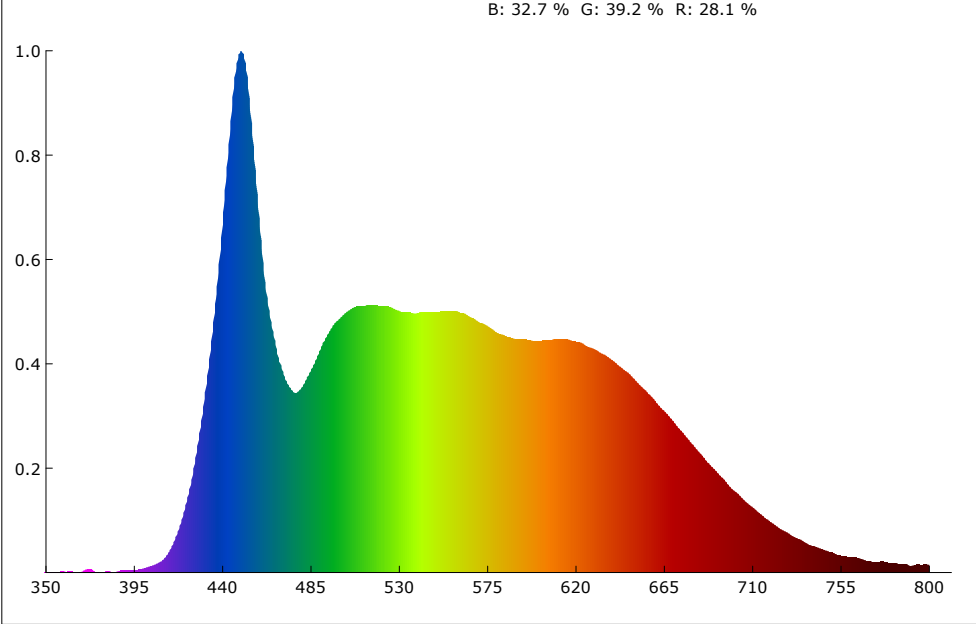
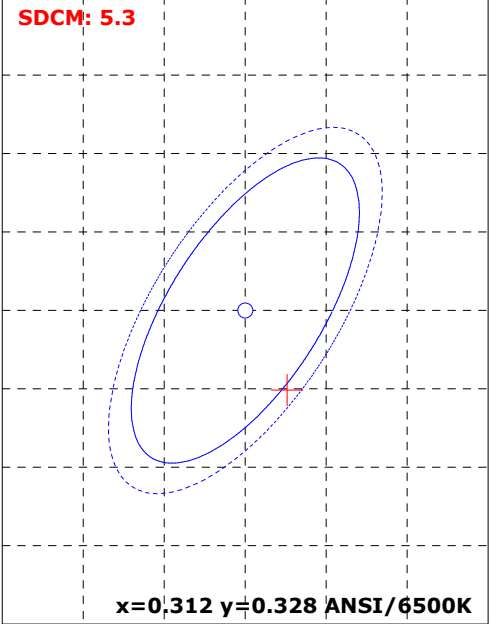


Spectrogram



SDCM



Color Parameter:

x: 0.3149 y: 0.3231 u: 0.2016 v: 0.3103 u': 0.2016 v': 0.4654
R_ratio: 28.1 % G_ratio: 39.2 % B_ratio: 32.7 % RedRatio: 15.3 % GreenRatio: 80.4 % BlueRatio: 4.4 %

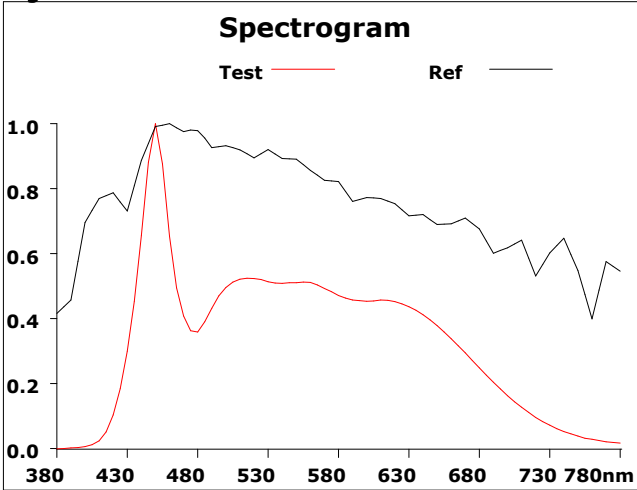
Ra: 96.1 AvgR: 94.9
R1: 97.7 R2: 96.5 R3: 93.6 R4: 95.7 R5: 98.2 R6: 93.5 R7: 96.6 R8: 97.3
R9: 92.6 R10: 91.7 R11: 94.4 R12: 81.2 R13: 97.9 R14: 96.4 R15: 99.5

CCT: 6430 K Flux: 2673.434 lm PeakWave: 449.6 nm SDCM: 5.3
S/P: 2.3 CentralWave: 450.2 nm DominantWave: 484.2 nm CentroidWave: 553.1 nm
HalfWidth: 27.0 nm duv: -0.00099 purity: 7.1 % CQS: 91.5
LER(TM-30): 266.7 Ep: 10025.5 mw Rg: 102.0 Rf: 92.7
Red Ep: 2691.1 mw Near red Ep: 400.0 mw Near infrared Ep: 26.4 mw

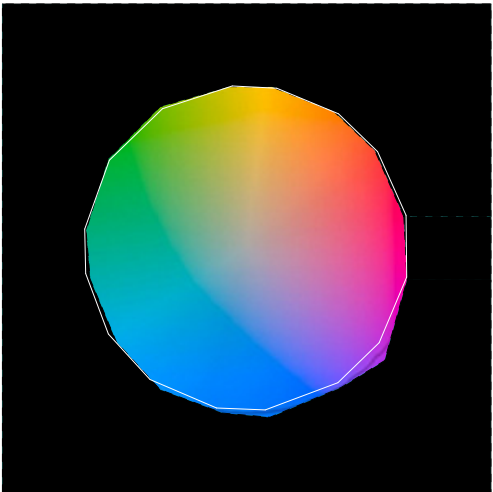
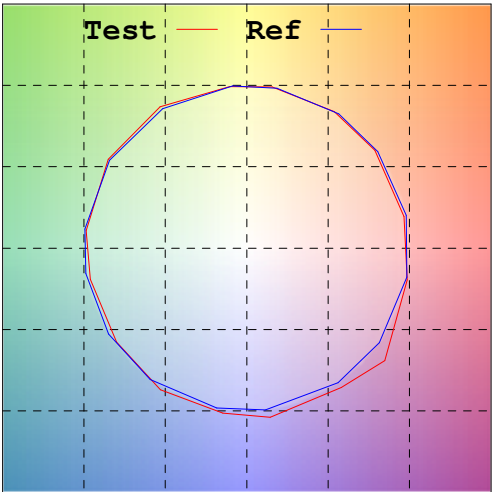
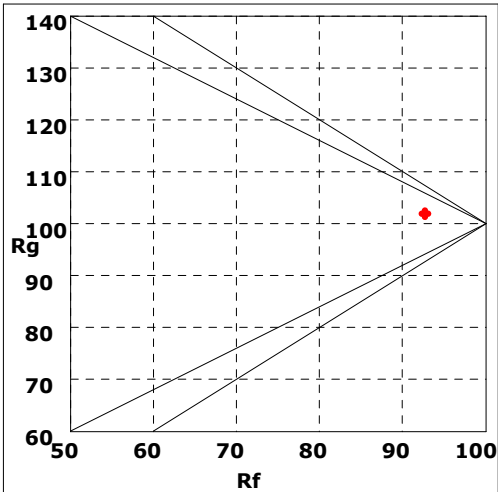
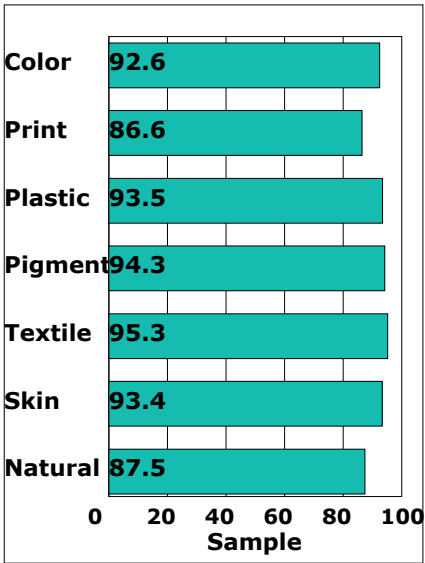
Electrical parameters:

Effic: 28.3 Lm/W Energy: 30.9 Effi: G
U: 220.2 V I: 0.671 A P: 94.330 W Pf: 0.638

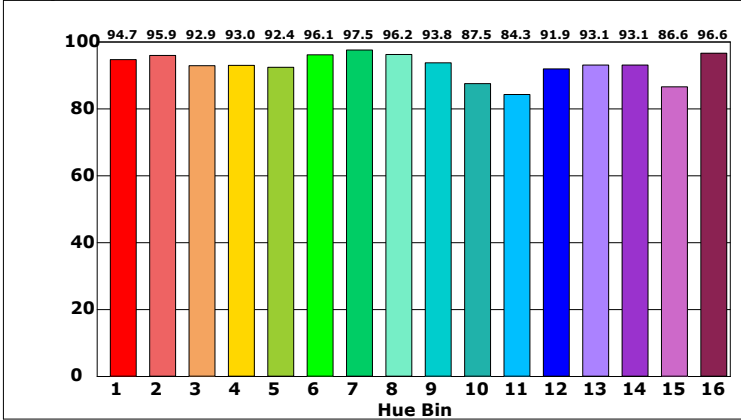
Rf: 92.7 CCT: 6430K u': 0.2016
Rg: 102.0 LER: 266.7 Duv: -0.00099 v': 0.4654



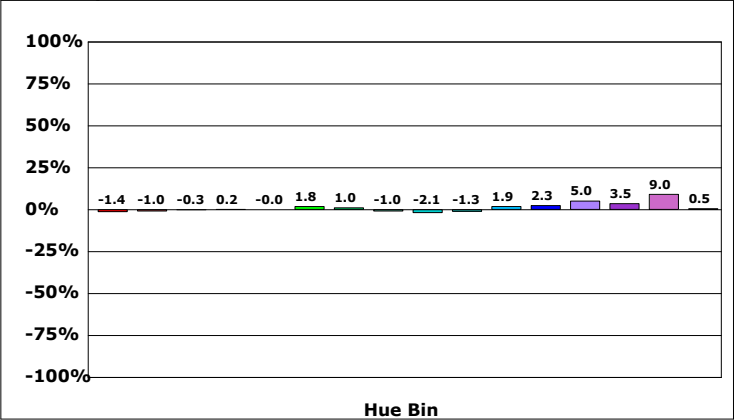
500			
Hue Bin	Rf	Chroma	Hue
1	94.7	-1.4%	-0.6%
2	95.9	-1.0%	1.5%
3	92.9	-0.3%	3.2%
4	93.0	0.2%	2.9%
5	92.4	-0.0%	1.7%
6	96.1	1.8%	0.8%
7	97.5	1.0%	-0.1%
8	96.2	-1.0%	0.8%
9	93.8	-2.1%	4.1%
10	87.5	-1.3%	6.8%
11	84.3	1.9%	8.7%
12	91.9	2.3%	4.3%
13	93.1	5.0%	2.0%
14	93.1	3.5%	0.0%
15	86.6	9.0%	-7.2%
16	96.6	0.5%	-1.7%



Rf by Bue

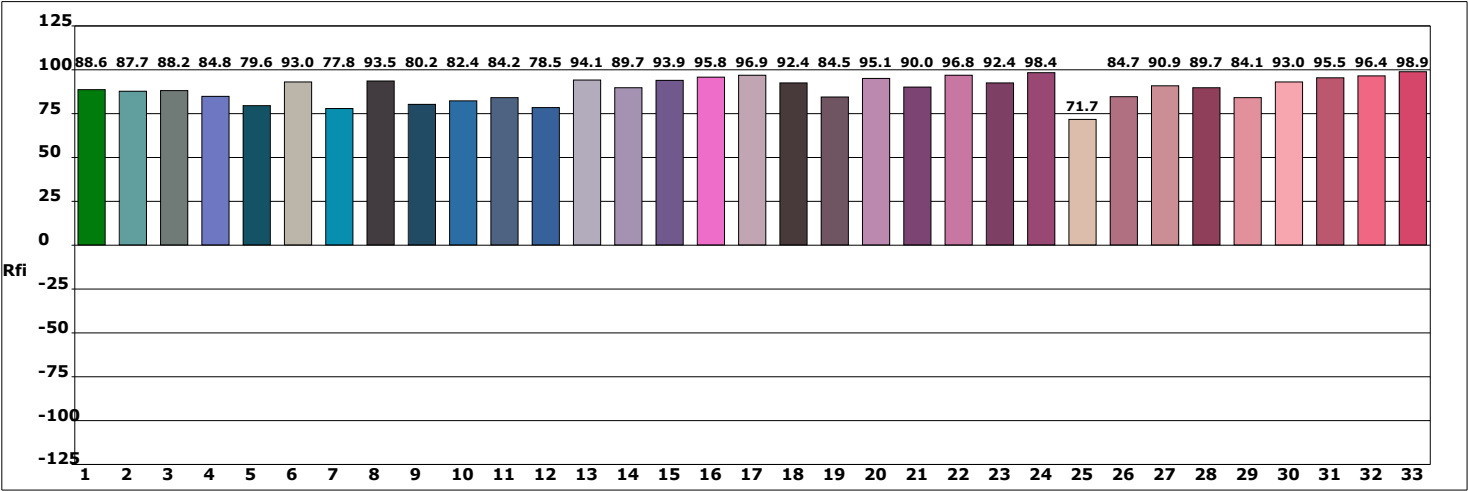
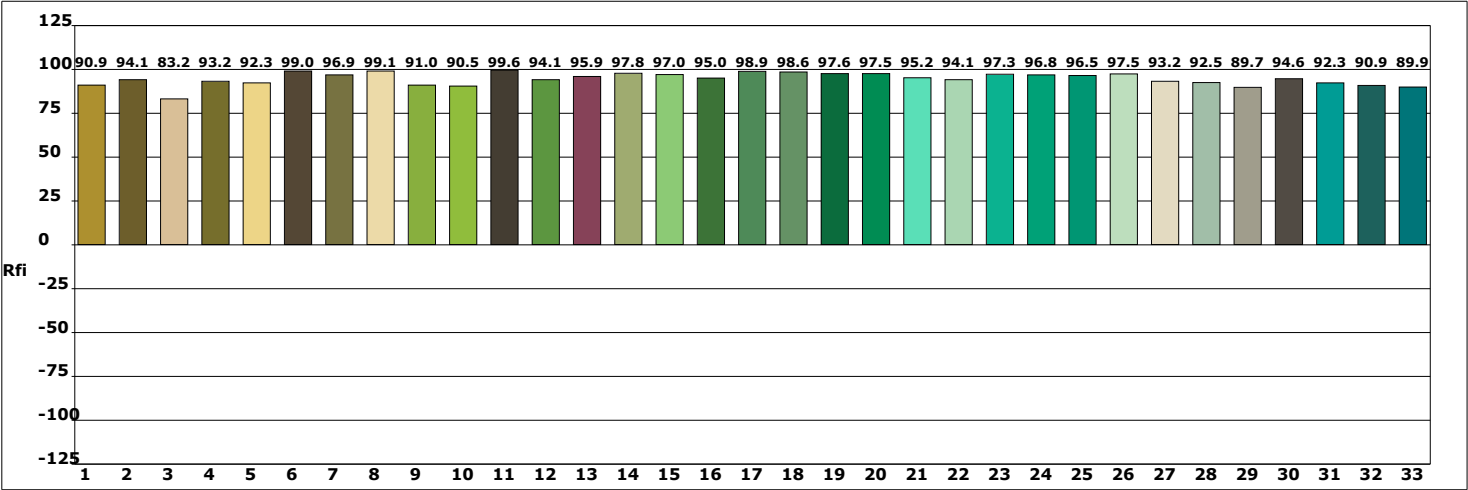
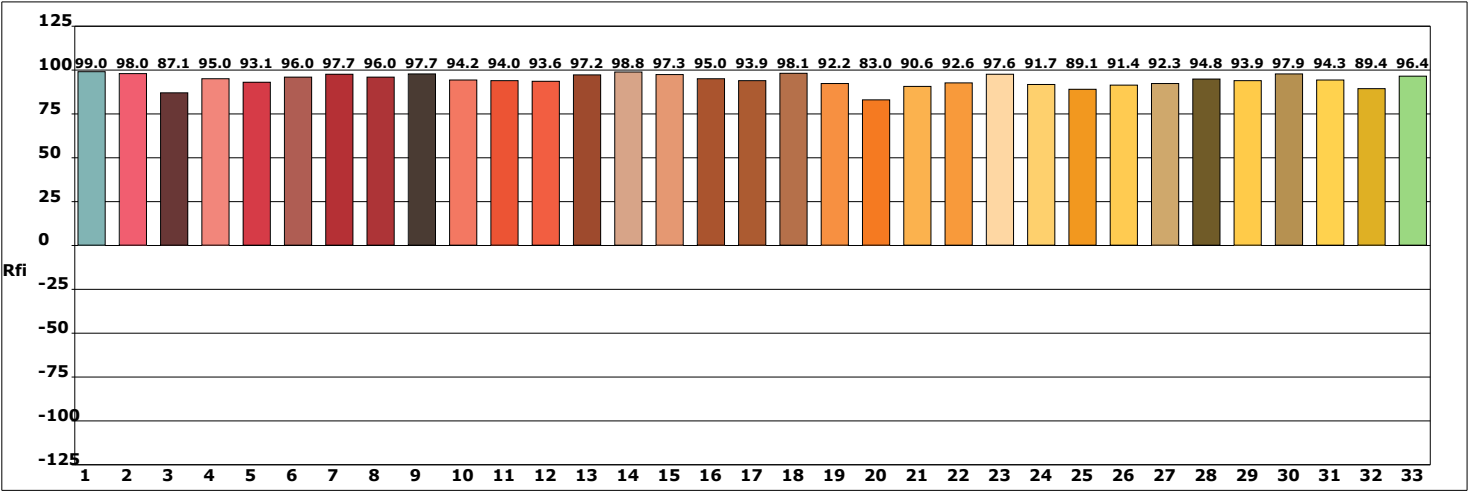


Chroma by Bue



Product model: P19
Product number:
Tester:
Remarks:

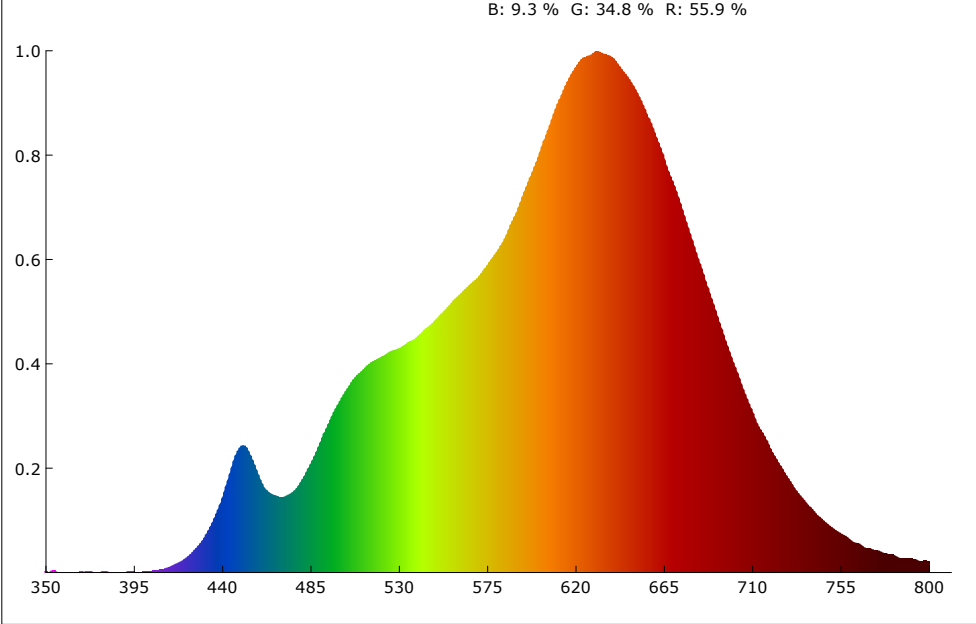
Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 12/14/12



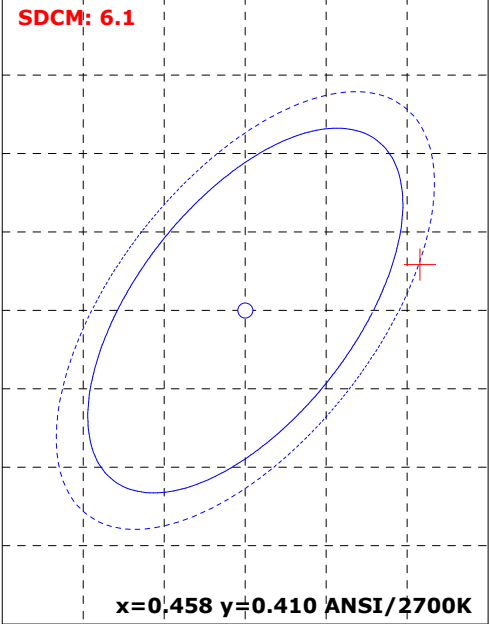
Product model: P19
Product number:
Tester:
Remarks:

Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 12/14/12

Spectrogram



SDCM



Color Parameter:

x: 0.4686 y: 0.4130 u: 0.2671 v: 0.3531 u': 0.2671 v': 0.5296
R_ratio: 55.9 % G_ratio: 34.8 % B_ratio: 9.3 % RedRatio: 27.5 % GreenRatio: 71.1 % BlueRatio: 1.4 %

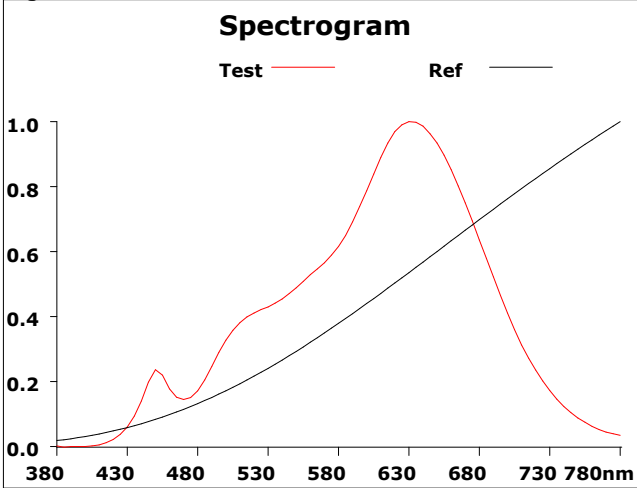
Ra: 96.6 AvgR: 95.8
R1: 98.3 R2: 98.9 R3: 98.9 R4: 95.7 R5: 96.8 R6: 94.3 R7: 96.3 R8: 93.9
R9: 87.0 R10: 97.5 R11: 90.8 R12: 94.0 R13: 98.1 R14: 98.4 R15: 97.5

CCT: 2600 K Flux: 1936.470 lm PeakWave: 630.5 nm SDCM: 6.1
S/P: 1.3 CentralWave: 622.2 nm DominantWave: 584.7 nm CentroidWave: 607.9 nm
HalfWidth: 138.6 nm duv: 0.00026 purity: 64.6 % CQS: 91.2
LER(TM-30): 259.0 Ep: 7475.8 mw Rg: 100.7 Rf: 95.5
Red Ep: 3838.9 mw Near red Ep: 583.0 mw Near infrared Ep: 27.3 mw

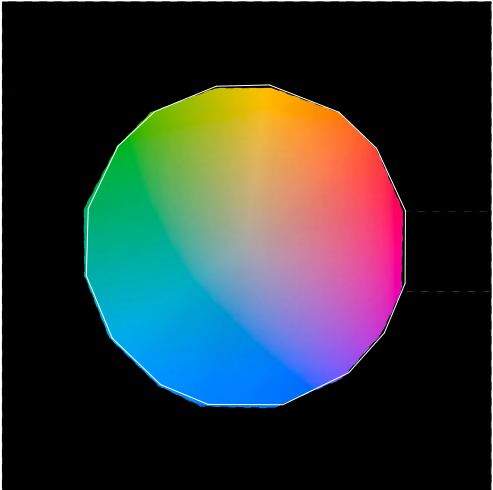
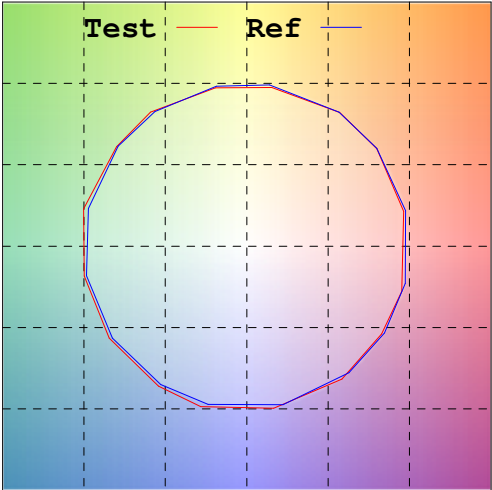
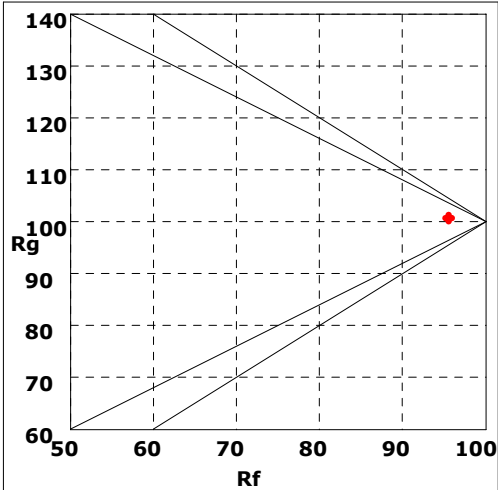
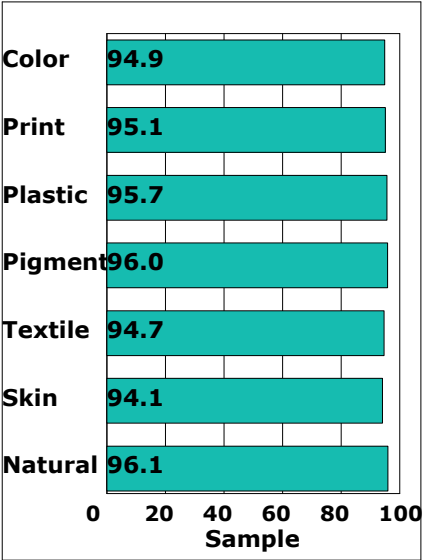
Electrical parameters:

Effic: 21.9 Lm/W Energy: 23.9 Effi: G
U: 220.1 V I: 0.634 A P: 88.250 W Pf: 0.632

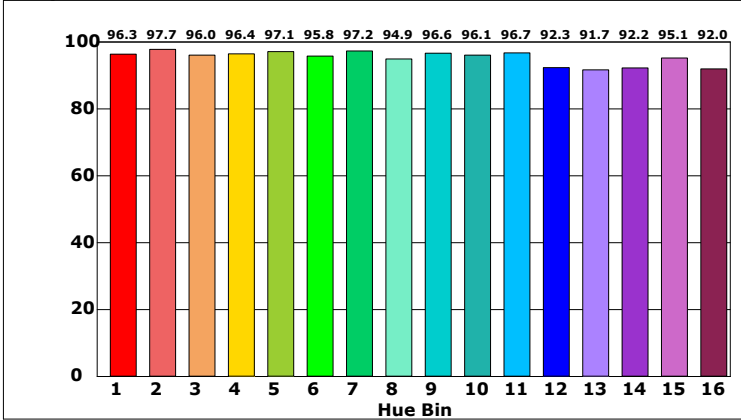
Rf: 95.5 CCT: 2600K u': 0.2671
Rg: 100.7 LER: 259.0 Duv: 0.00026 v': 0.5296



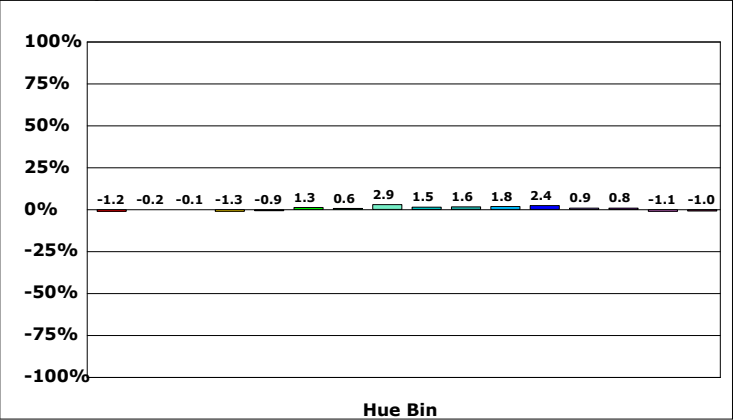
500			
Hue Bin	Rf	Chroma	Hue
1	96.3	-1.2%	-0.2%
2	97.7	-0.2%	-0.2%
3	96.0	-0.1%	-0.4%
4	96.4	-1.3%	-1.7%
5	97.1	-0.9%	0.8%
6	95.8	1.3%	2.5%
7	97.2	0.6%	0.8%
8	94.9	2.9%	0.8%
9	96.6	1.5%	-0.2%
10	96.1	1.6%	-1.0%
11	96.7	1.8%	-0.6%
12	92.3	2.4%	-4.3%
13	91.7	0.9%	-6.0%
14	92.2	0.8%	-5.7%
15	95.1	-1.1%	-1.4%
16	92.0	-1.0%	-5.1%



Rf by Bue

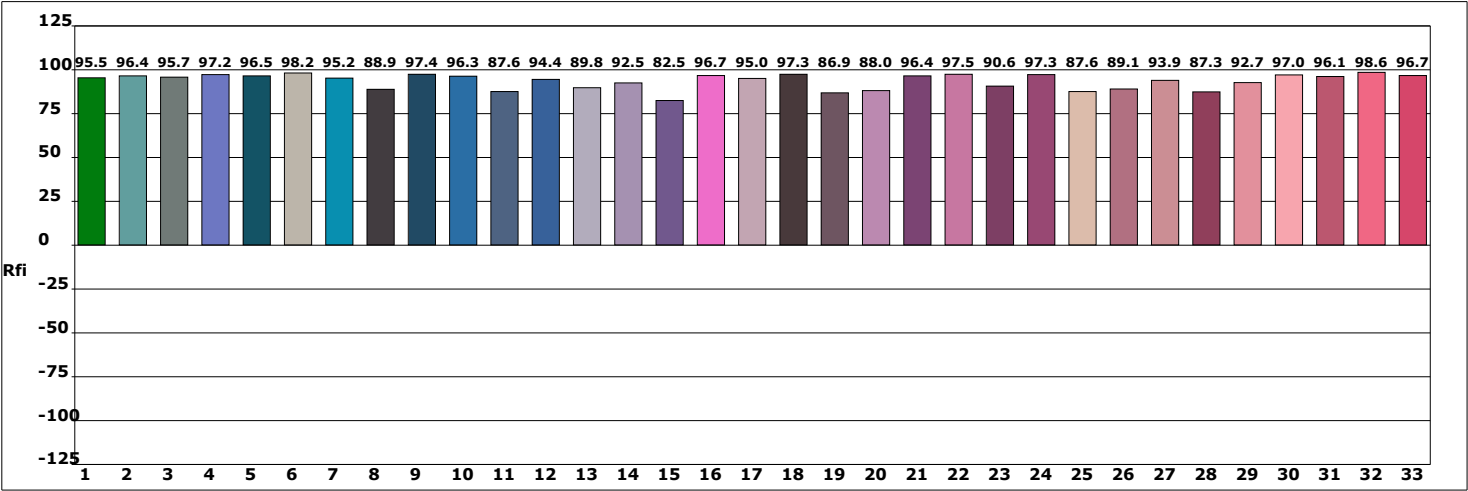
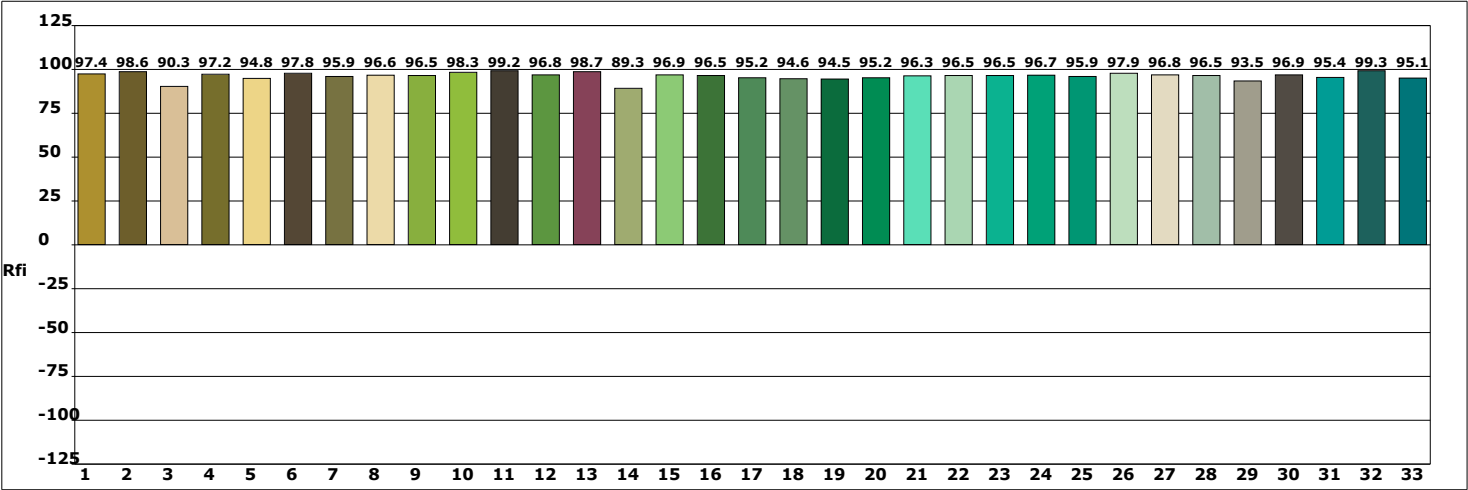
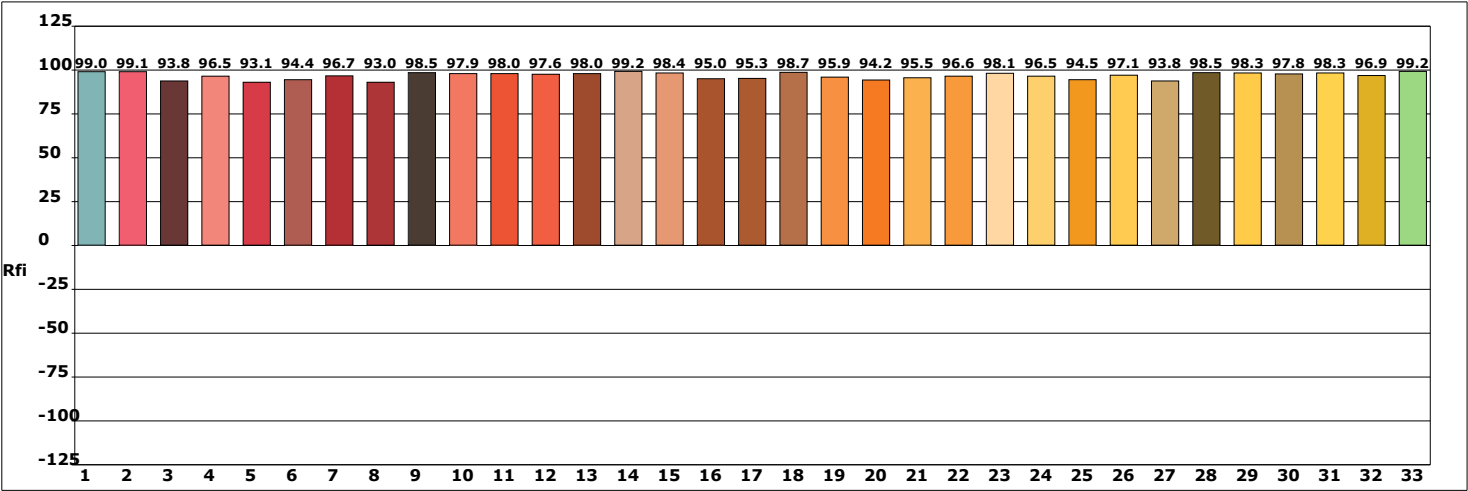


Chroma by Bue

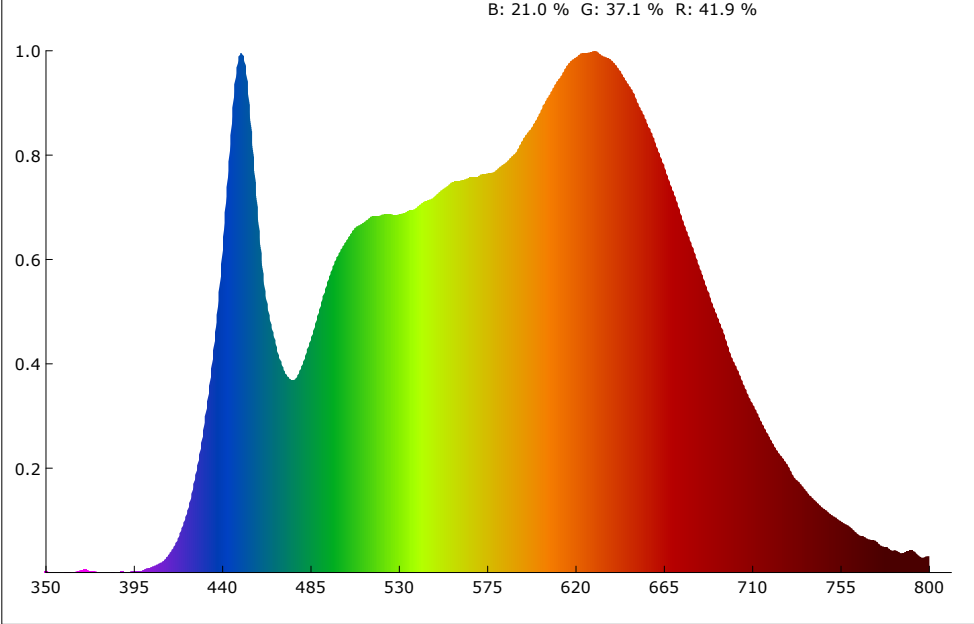


Product model: P19
Product number:
Tester:
Remarks:

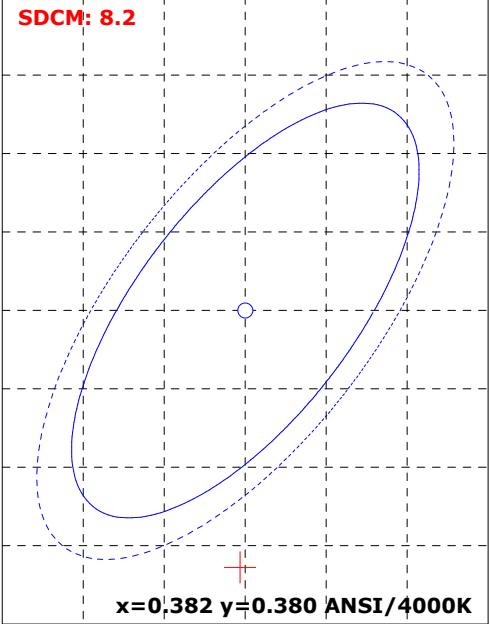
Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 12/14/12



Spectrogram



SDCM



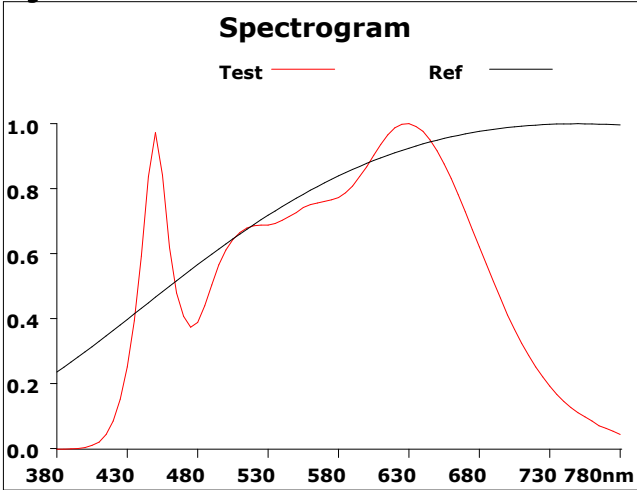
Color Parameter:

x: 0.3815	y: 0.3633	u: 0.2313	v: 0.3304	u': 0.2313	v': 0.4956		
R_ratio: 41.9 %	G_ratio: 37.1 %	B_ratio: 21.0 %	RedRatio: 21.2 %	GreenRatio: 75.9 %	BlueRatio: 2.9 %		
Ra: 95.6	AvgR: 94.4						
R1: 94.3	R2: 96.8	R3: 97.0	R4: 93.1	R5: 94.9	R6: 95.0	R7: 98.0	R8: 96.0
R9: 90.1	R10: 94.7	R11: 89.8	R12: 90.0	R13: 94.6	R14: 97.7	R15: 93.7	
CCT: 3866 K	Flux: 1931.134 lm		PeakWave: 629.5 nm		SDCM: 8.2		
S/P: 1.8	CentralWave: 589.4 nm		DominantWave: 584.0 nm		CentroidWave: 582.4 nm		
HalfWidth: 201.4 nm	duv: -0.00677		purity: 23.5 %		CQS: 88.9		
LER(TM-30): 261.1	Ep: 7396.0 mw		Rg: 104.5		Rf: 94.5		
Red Ep: 2883.4 mw	Near red Ep: 485.7 mw		Near infrared Ep: 27.7 mw				

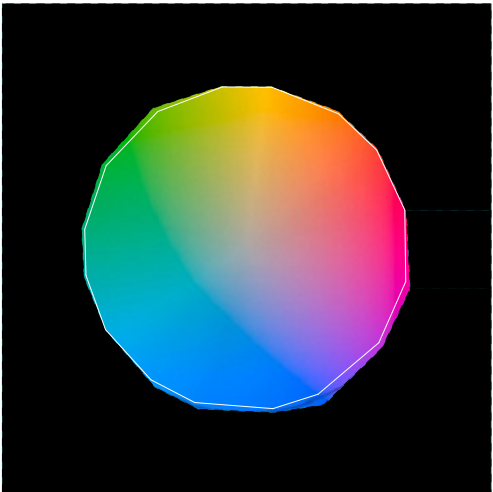
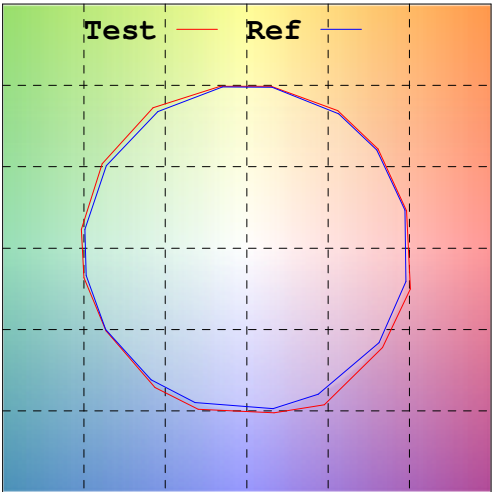
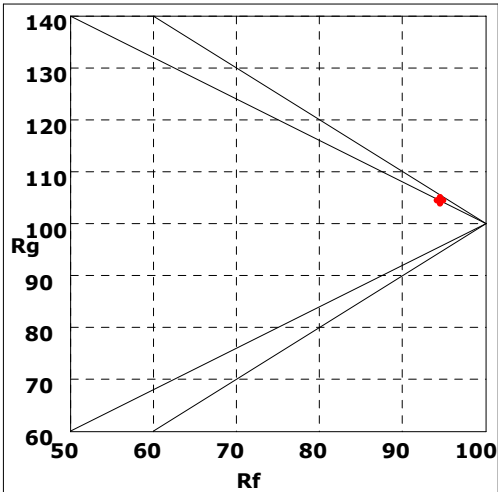
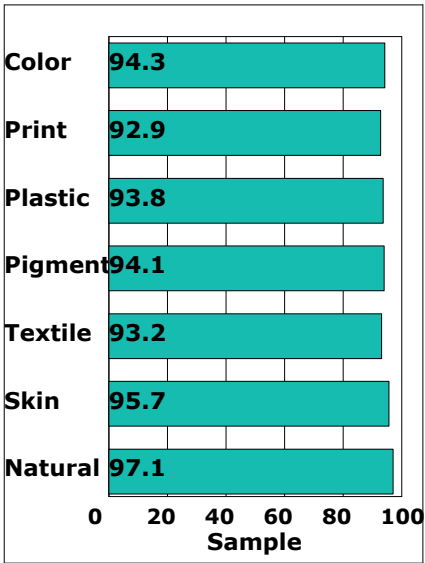
Electrical parameters:

Effic: 26.9 Lm/W	Energy: 29.3	Effi: G	
U: 220.4 V	I: 0.525 A	P: 71.810 W	Pf: 0.619

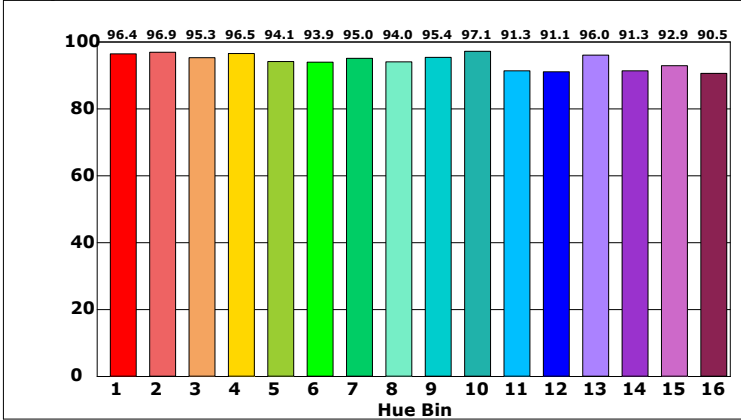
Rf: 94.5 CCT: 3866K u': 0.2313
Rg: 104.5 LER: 261.1 Duv: -0.00677 v': 0.4956



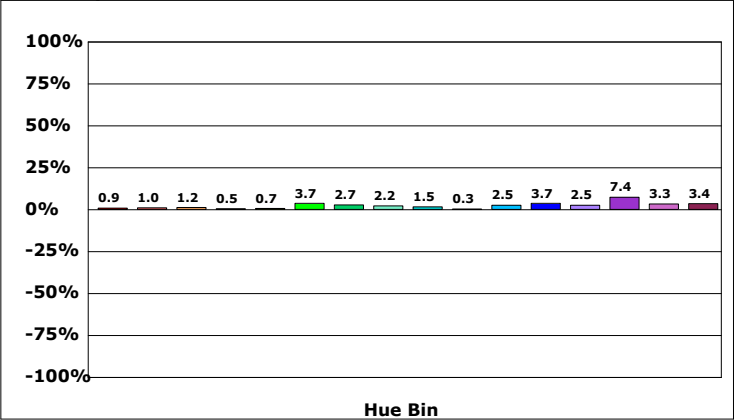
500			
Hue Bin	Rf	Chroma	Hue
1	96.4	0.9%	-0.5%
2	96.9	1.0%	0.1%
3	95.3	1.2%	1.6%
4	96.5	0.5%	0.8%
5	94.1	0.7%	1.3%
6	93.9	3.7%	1.3%
7	95.0	2.7%	0.4%
8	94.0	2.2%	0.4%
9	95.4	1.5%	1.0%
10	97.1	0.3%	0.6%
11	91.3	2.5%	4.7%
12	91.1	3.7%	2.8%
13	96.0	2.5%	0.2%
14	91.3	7.4%	-0.4%
15	92.9	3.3%	-1.2%
16	90.5	3.4%	-4.1%



Rf by Bue



Chroma by Bue



Product model: P19
Product number:
Tester:
Remarks:

Manufacturer: Guangzhou Hotion Technology Co.,
Test unit:
Date of observation: 12/14/12

