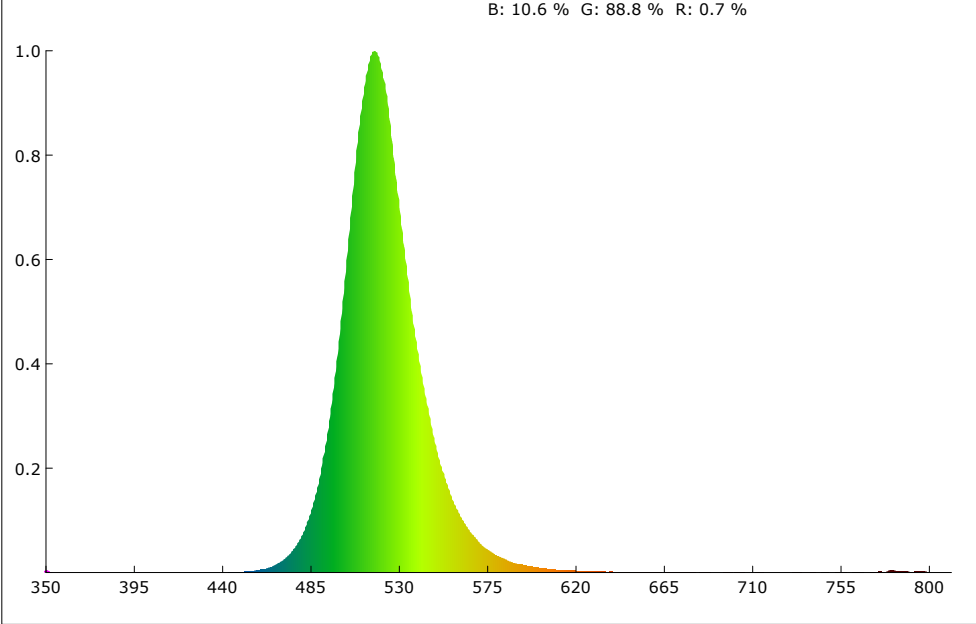
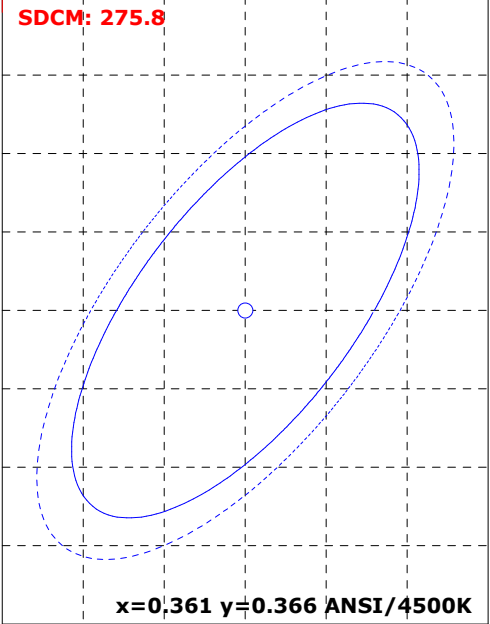


Spectrogram



SDCM



Color Parameter:

x: 0.1571      y: 0.7048      u: 0.0564      v: 0.3795      u': 0.0564      v': 0.5692  
R\_ratio: 0.7 %      G\_ratio: 88.8 %      B\_ratio: 10.6 %      RedRatio: 0.3 %      GreenRatio: 98.7 %      BlueRatio: 1.0 %

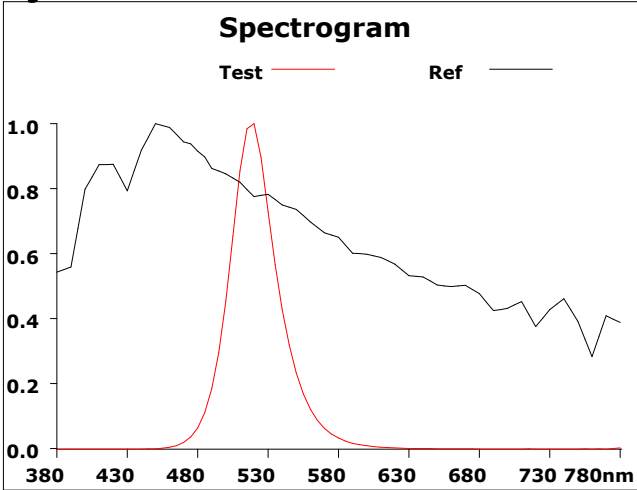
Ra: -19.9      AvgR: -32.8  
R1: -32.6      R2: -4.3      R3: -15.6      R4: -61.6      R5: -8.0      R6: -10.2      R7: -0.1      R8: -27.3  
R9: -99.0      R10: -95.8      R11: -88.0      R12: -22.8      R13: -38.3      R14: 42.2      R15: -30.7

CCT: 8237 K      Flux: 975.045 lm      PeakWave: 517.7 nm      SDCM: 275.8  
S/P: 3.1      CentralWave: 519.0 nm      DominantWave: 522.9 nm      CentroidWave: 523.2 nm  
HalfWidth: 35.0 nm      duv: 0.15873      purity: 74.5 %      CQS: 0.4  
LER(TM-30): 455.6      Ep: 2140.2 mw      Rg: 10.0      Rf: 1.2  
Red Ep: 14.3 mw      Near red Ep: 3.7 mw      Near infrared Ep: 3.4 mw

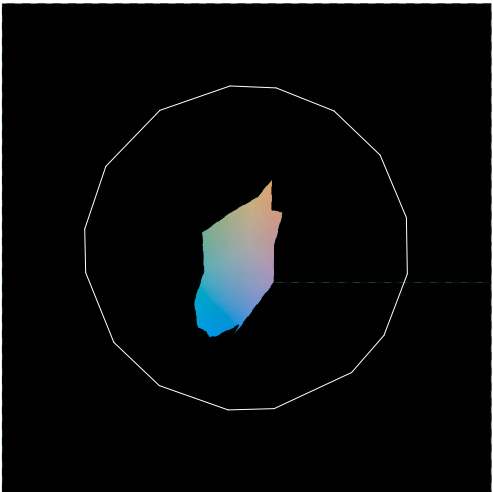
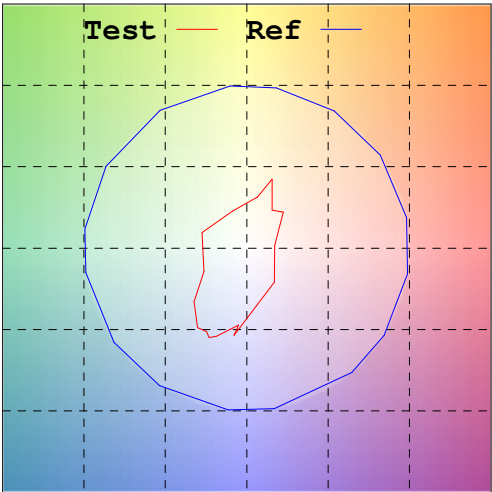
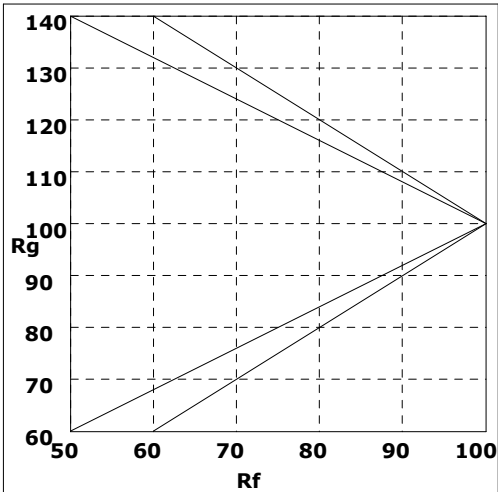
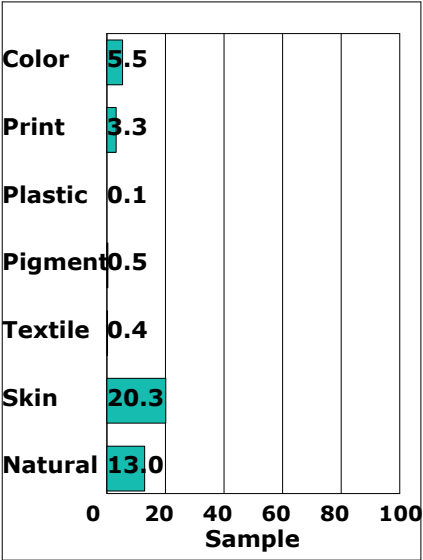
Electrical parameters:

Effic: 13.0 lm/W      Energy: 14.1      Effi: G  
U: 222.0 V      I: 0.542 A      P: 75.200 W      Pf: 0.624

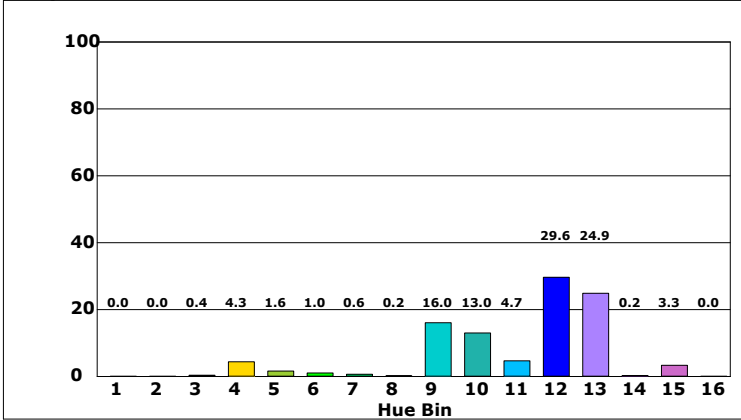
Rf: 1.2 CCT: 8237K u': 0.0564  
Rg: 10.0 LER: 455.6 Duv: 0.15873 v': 0.5692



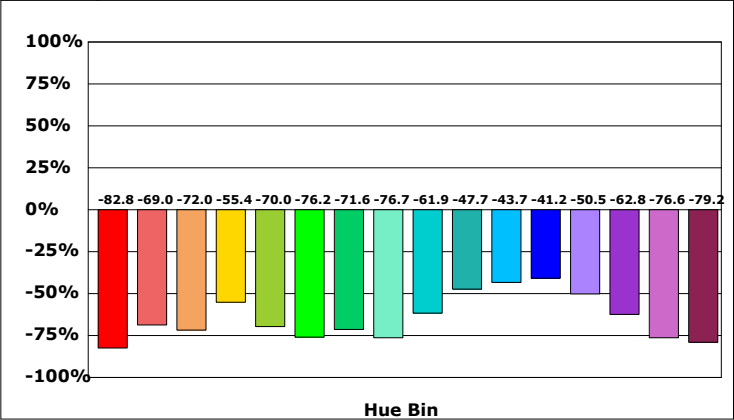
| 500     |      |        |        |
|---------|------|--------|--------|
| Hue Bin | Rf   | Chroma | Hue    |
| 1       | 0.0  | -82.8% | -1.0%  |
| 2       | 0.0  | -69.0% | 4.1%   |
| 3       | 0.4  | -72.0% | -2.2%  |
| 4       | 4.3  | -55.4% | -8.5%  |
| 5       | 1.6  | -70.0% | -3.1%  |
| 6       | 1.0  | -76.2% | -2.5%  |
| 7       | 0.6  | -71.6% | 1.0%   |
| 8       | 0.2  | -76.7% | 11.2%  |
| 9       | 16.0 | -61.9% | 30.4%  |
| 10      | 13.0 | -47.7% | 21.1%  |
| 11      | 4.7  | -43.7% | 5.5%   |
| 12      | 29.6 | -41.2% | -20.1% |
| 13      | 24.9 | -50.5% | -26.3% |
| 14      | 0.2  | -62.8% | -41.7% |
| 15      | 3.3  | -76.6% | -51.3% |
| 16      | 0.0  | -79.2% | -21.0% |



Rf by Bue



Chroma by Bue



Product model: P19  
Product number:  
Tester:  
Remarks:

Manufacturer: Guangzhou Hotion Technology Co.,  
Test unit:  
Date of observation: 08/10/12

