



LED 驱动电源综合测试仪 (WT2080) Brochure

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Lead in CFL & LED Test Instruments

Rev. 1/9/2019

● 产品简介:



WT2080 是一款驱动电源综合测试仪，其满足 GB/T2482-2009 和 IEC62384: 2006 标准。WT2080 可以测试 LED 驱动电源输入特性（AC 和 DC 模式），输出特性（AC 和 DC 模式），输入启动特性（DC 模式）和谐波测量。

WT2080 可以通讯电脑打印出测试报告，所有测试参数和数据曲线显示在软件界面。

● 产品功能

1. 输入特性（AC）

- 测试输入电压，电流，功率，功率因素，电网频率，总谐波和 0-50 次的谐波分量，驻波比，初相角，峰相角和相位角
- 电流，电压的基频范围：45Hz~65Hz；窄频范围：45 Hz ~ 5 kHz；宽频范围：45 Hz ~ 1 MHz
- 电压范围：3 ~ 300 V (CF = 1.67)；电流范围：5mA ~ 2.7A (CF = 3)；功率范围：0.015 ~ 800 W；功率因素范围：0.000 ~ + 1.000

2. 输入特性（DC）

- 测试电压，电流，功率
- 电压范围：3~500V；电流范围：5mA~8A；功率范围：0.015~4000W

3. 输出特性（AC）

- 测试灯电压，灯电流，灯功率
- 灯电压范围：3~300V(CF=3)；灯电流范围：5mA~2.7A(CF=3)；灯功率范围：0.015~800W

4. 输出特性（DC）

- 测试输出灯电压，灯电流，灯功率，纹波电流
- 电压范围：3~500V；电流范围：5mA~8A；功率范围：0.015~4KW；纹波电流范围：5mA~2.5A

5. 输出启动特性 (DC)

- 0-2 秒内灯电压和灯电流数据及变化曲线
- 灯电压范围: 3 ~ 500V
- 灯电流范围: 5mA ~ 8A

6. 谐波测试

- 总谐波和谐波分量为 0~50 倍, 波比, 初始相位角, 峰值相位角和相位角。

● 技术参数**AC:**

项目	基本误差	测试条件
电压	± (0.1%读数+0.1%量程+1 字)	输入波形: 正弦波 输入频率: 45Hz ~ 65Hz
电流		
功率		
功率因素		
频率		
谐波(有效值)	±0.1%读数	
灯电压	± (0.1%读数+0.1%量程+1 字)	输入波形: 正弦波 输入频率: 45Hz~ 65Hz
灯电流		
灯功率		

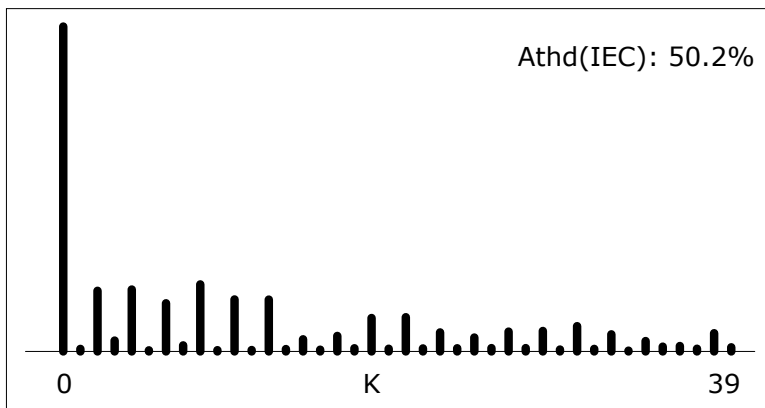
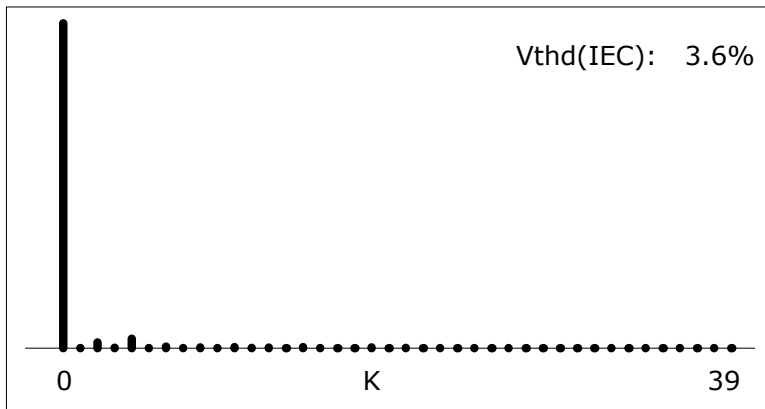
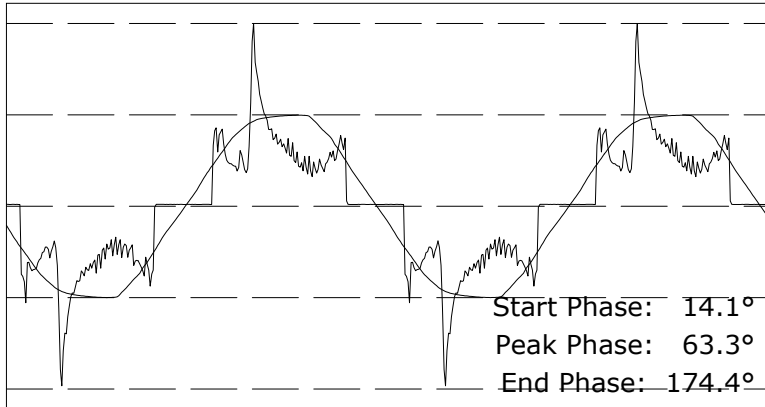
DC:

项目	基本误差	测试条件
电压	± (0.1%读数+0.1%量程+1 字)	DC 信号
电流		
功率		
灯电压	± (0.1%读数+0.1%量程+1 字)	DC 信号
灯电流		
灯功率		
纹波	±2.5%读数	20~70KHz

- 如下是 WT2080 LED 驱动电源综合测试仪测试报告:

Input Characteristics Test Report [Narrow Band]

Voltage 224.41(V) Current 0.2217(A) Power 44.12(W) Power Factor 0.8868 Frequency 49.97(Hz)



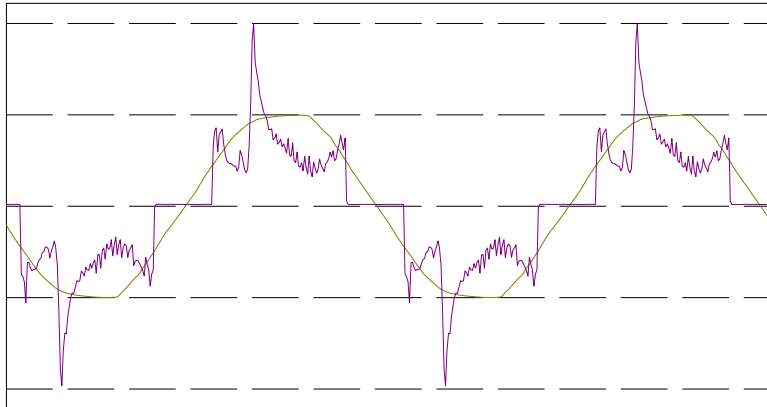
Spectrum(k)	Voltage	Current
0	0.0%	0.0%
1	100.0%	100.0%
2	0.1%	0.8%
3	1.8%	18.7%
4	0.2%	3.4%
5	2.9%	19.1%
6	0.1%	0.4%
7	0.5%	14.8%
8	0.1%	1.9%
9	0.3%	20.7%
10	0.1%	0.4%
11	0.4%	16.0%
12	0.1%	0.5%
13	0.2%	16.0%
14	0.0%	0.8%
15	0.4%	3.7%
16	0.1%	0.5%
17	0.0%	4.8%
18	0.0%	1.0%
19	0.3%	10.3%
20	0.0%	0.9%
21	0.1%	10.6%
22	0.0%	0.9%
23	0.1%	5.9%
24	0.0%	1.0%
25	0.1%	4.3%
26	0.0%	1.0%
27	0.1%	6.1%
28	0.0%	1.1%
29	0.0%	6.3%
30	0.0%	0.6%
31	0.0%	7.8%
32	0.0%	0.8%
33	0.1%	5.3%
34	0.0%	0.3%
35	0.1%	3.2%
36	0.0%	1.5%
37	0.1%	1.7%
38	0.0%	0.9%
39	0.1%	5.7%

Type:LED 45W
 Manufacturer:BRIGHT LIGHTING
 Temperature:25°C
 Test Instrument: Lisun LED Driver Analysis System
 Operator: HUANG
 Test Time:2013-05-30

Number:1
 Humidity:85%
 Inspector:HECTOR

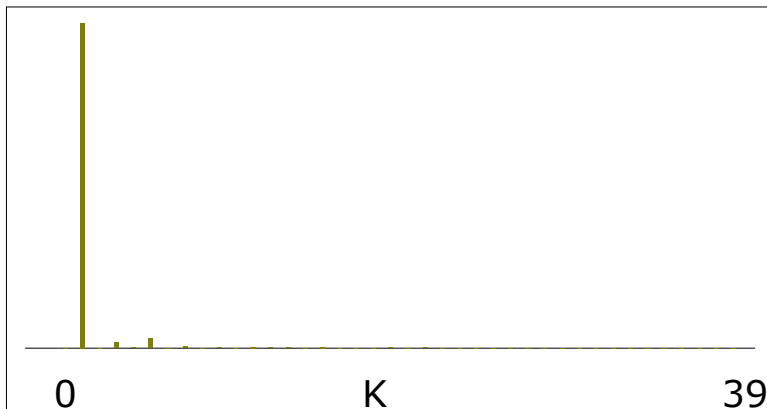
Input Characteristics Test Report [Narrow Band]

Voltage	Current	Power	Power Factor	Frequency
224.41(V)	0.2217(A)	44.12(W)	0.8868	49.97(Hz)

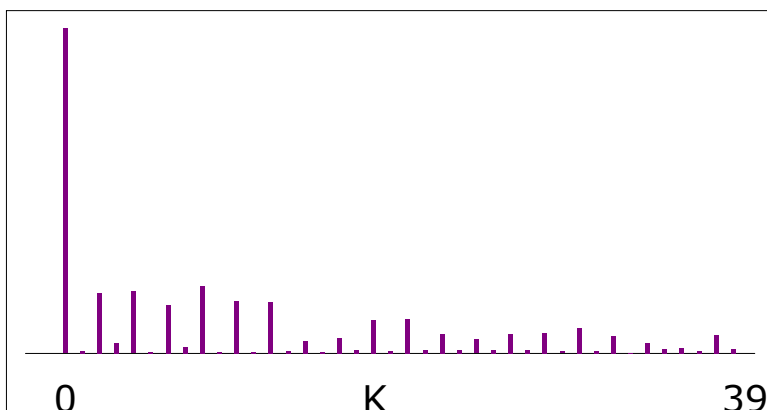


Voltage
 Sensitivity: 306.54 V/Div
 Peak: 306.54 V

Current
 Sensitivity: 0.3565 A
 Peak: 0.7130 A
 Start Phase: 14.1°
 Peak Phase: 63.3°
 End Phase: 174.4°



Voltage Spectrum
 THD(IEC): 3.56%
 H3: 1.82%
 H5: 2.92%
 H7: 0.51%
 H9: 0.28%



Current Spectrum
 THD(IEC): 50.2%
 H3: 18.69%
 H5: 19.07%
 H7: 14.84%
 H9: 20.67%

Type:LED 45W	Number:1
Manufacturer:BRIGHT LIGHTING	
Temperature:25°C	Humidity:85%
Test Instrument: Lisun LED Driver Analysis System	
Operator: HUANG	Inspector:HECTOR
Test Time:2013-05-30	

Input Characteristics Test Report [Narrow Band] (Cont.)

Voltage: 224.41(V)

VCF: 1.366

Vthd(IEC): 3.56%

Voltage Spectrum

Spectrum(k)	Rel.	Abs.(V)
0	0.01%	0.02
1	100.00%	224.47
2	0.05%	0.12
3	1.82%	4.08
4	0.15%	0.34
5	2.92%	6.56
6	0.10%	0.22
7	0.51%	1.14
8	0.06%	0.13
9	0.28%	0.63
10	0.07%	0.16
11	0.37%	0.82
12	0.11%	0.24
13	0.21%	0.46
14	0.05%	0.10
15	0.36%	0.82
16	0.06%	0.14
17	0.05%	0.11
18	0.03%	0.06
19	0.25%	0.57
20	0.02%	0.05
21	0.10%	0.23
22	0.01%	0.02
23	0.09%	0.20
24	0.01%	0.03
25	0.07%	0.16
26	0.01%	0.03
27	0.06%	0.13
28	0.03%	0.06
29	0.02%	0.05
30	0.01%	0.03
31	0.04%	0.10
32	0.02%	0.04
33	0.06%	0.13
34	0.01%	0.02
35	0.07%	0.17
36	0.01%	0.03
37	0.06%	0.14
38	0.01%	0.03
39	0.07%	0.15

Current: 0.2217(A)

ACF: 3.216

Athd(IEC): 50.18%

Current Spectrum

Spectrum(k)	Rel.	Abs.(A)
0	0.01%	0.0000
1	100.00%	0.1969
2	0.79%	0.0016
3	18.69%	0.0368
4	3.40%	0.0067
5	19.07%	0.0375
6	0.37%	0.0007
7	14.84%	0.0292
8	1.88%	0.0037
9	20.67%	0.0407
10	0.41%	0.0008
11	16.05%	0.0316
12	0.46%	0.0009
13	15.99%	0.0315
14	0.75%	0.0015
15	3.75%	0.0074
16	0.54%	0.0011
17	4.78%	0.0094
18	1.01%	0.0020
19	10.34%	0.0204
20	0.88%	0.0017
21	10.59%	0.0209
22	0.94%	0.0018
23	5.91%	0.0116
24	1.03%	0.0020
25	4.32%	0.0085
26	1.03%	0.0020
27	6.12%	0.0120
28	1.05%	0.0021
29	6.34%	0.0125
30	0.61%	0.0012
31	7.82%	0.0154
32	0.83%	0.0016
33	5.29%	0.0104
34	0.25%	0.0005
35	3.25%	0.0064
36	1.51%	0.0030
37	1.68%	0.0033
38	0.88%	0.0017
39	5.66%	0.0111

Type:LED 45W

Manufacturer:BRIGHT LIGHTING

Temperature:25°C

Test Instrument: Lisun LED Driver Analysis System

Operator: HUANG

Test Time:2013-05-30

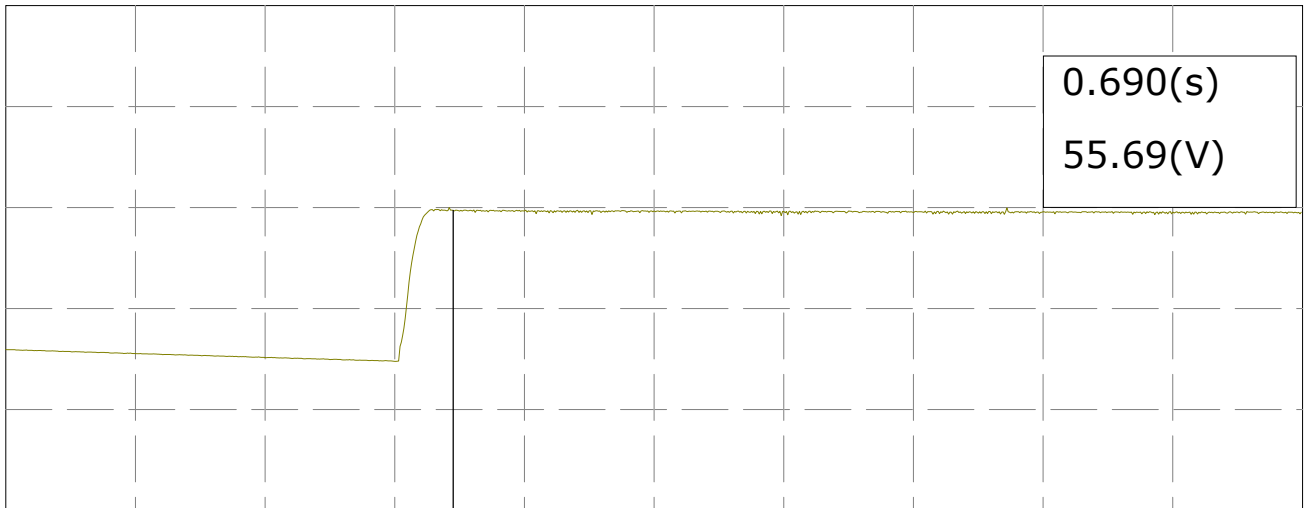
Number:1

Humidity:85%

Inspector:HECTOR

Start characteristics

Lamp Voltage Wave



Lamp Voltage(rms)
Sensitivity: 18.74 V/Div
Peak Voltage: 56.21 V

Time
Sensitivity: 200 ms/Div
Time to peak: 0.684 s

Lamp Current Wave



Lamp Current(rms)
Sensitivity: 0.2471 A/Div
Peak Current: 0.7387 A
Average Current: 0.4890 A
Current peak to average: 1.510

Time
Sensitivity: 200 ms/Div
Time to peak: 0.690 s

Type:LED 45W
Manufacturer:BRIGHT LIGHTING
Temperature:25°C
Test Instrument: Lisun LED Driver Analysis System
Operator: HUANG
Test Time:2013-05-30

Number:1
Humidity:85%
Inspector:HECTOR

Output

Lamp Voltage(rms):55.25V Lamp Current(rms):0.7164A
Power:39.58W Ripple Current:0.016A Energy Efficiency:0.899

Lamp Voltage Wave



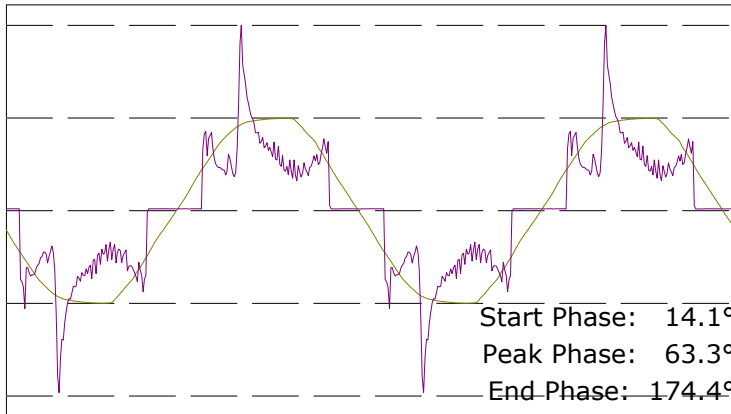
Lamp Current Wave



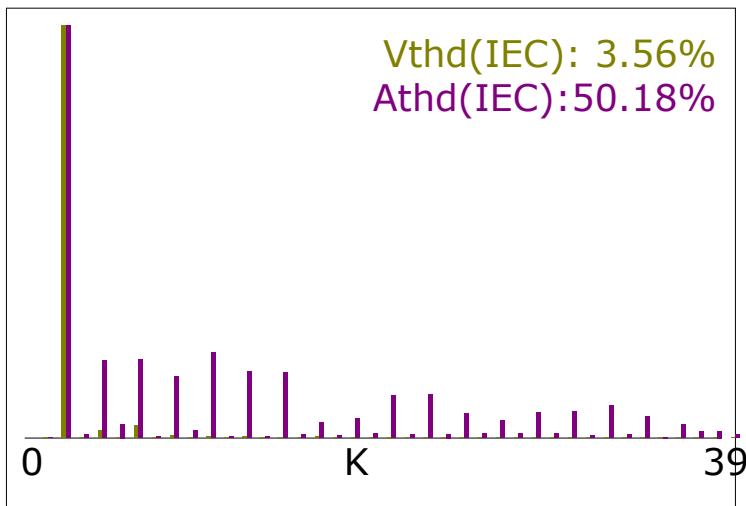
Type:LED 45W	Number:1
Manufacturer:BRIGHT LIGHTING	
Temperature:25°C	Humidity:85%
Test Instrument: Lisun LED Driver Analysis System	
Operator: HUANG	Inspector:HECTOR
Test Time:2013-05-30	

Input & Output Characteristics Test Report

Input Characteristics Test Report [Narrow Band]



Voltage: 224.411(V)
VCF: 1.366
Vthd(IEC): 3.56%
Current: 0.222(A)
ACF: 3.216
Athd(IEC): 50.18%
Power: 44.1(W)
Power Factor: 0.8868
Frequency: 49.97(Hz)



Voltage Spectrum
H3: 1.82%
H5: 2.92%
H7: 0.51%
H9: 0.28%

Current Spectrum
H3: 18.69%
H5: 19.07%
H7: 14.84%
H9: 20.67%

Output characteristics



Lamp Voltage(rms):55.25V
Lamp Current(rms):0.7164A
Power:39.58W
Ripple Current:0.016A
Energy Efficiency:0.899

Type:LED 45W
Manufacturer:BRIGHT LIGHTING
Temperature:25°C
Test Instrument: Lisun LED Driver Analysis System
Operator: HUANG
Test Time:2013-05-30

Number:1
Humidity:85%
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