Test Procedure for the NCL30082SMRTGEVB Evaluation Board

Test Procedure

Equipment Needed

AC Source – 90 to 135 V ac 50/60 Hz Minimum 500 W capability
AC Wattmeter – 300 W Minimum, True RMS Input Voltage, Current, Power Factor, and THD 0.2 % accuracy or better
DC Voltmeter – 300 V dc minimum 0.1 % accuracy or better
DC Ammeter – 1 A dc minimum 0.1 % accuracy or better
LED Load – 75 V @ 0.1 A. A constant voltage electronic load is an acceptable substitute for the LEDs as long as it is stable.

Test Connections

1. Connect the LED Load to the red(+) and black(-) leads through the ammeter shown in Figure 8. Caution: Observe the correct polarity or the load may be damaged.

2. Connect the AC power to the input of the AC wattmeter shown in Figure 8. Connect the white leads to the output of the AC wattmeter

3. Connect the DC voltmeter as shown in Figure 8.

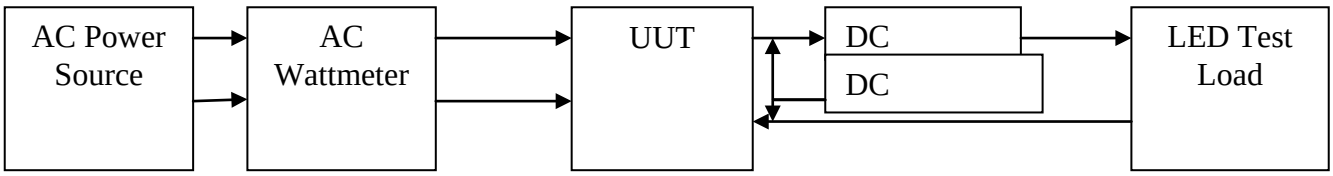

Figure 8. Test Set Up

Note: Unless otherwise specified, all voltage measurements are taken at the terminals of the UUT.

Functional Test Procedure

1. Set the LED Load for 75 V output. (Can use 65V LED Load with 100Ω Resistor in Series).
2. Set the input power to 120 V 60 Hz. Caution: Do not touch the ECA once it is energized because there are hazardous voltages present.
3. Check for 100 mA ± 3 mA I_{OUT}

Line and Load Regulation
120 V / Max Load

LED Output	Output Current 100 mA ± 3 mA	Output Power	Power Factor	
75 V				3.3 V Load = 0
75 V				3.3 V Load = 20 mA
	Output Voltage			
Aux Voltage	Min	Measured	Max	
3.3 V	3.0 V		3.6 V	LED Current = max
3.3 V	3.0 V		3.6 V	LED Current = 0 (dim = 0 V)
3.3 V	3.0 V		3.6 V	On/Off = Off