



# Light Emission Distribution Laboratory

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## Test Report: 180701LCP

### Testing of FloodLight Power for AEMO's NEM Load Table and other tests on optical systems

for iGuzzini EH Maxi Woody 3K Floodlight Model No. EH40.0

Type of LED Floodlight product:

Prepared for: Illuminotechnica, Unit 20, 43-45 College St, Gladesville NSW 2111 Australia

Model number: EH40.0

Description: iGuzzini EH Maxi Woody 3K Floodlight. Features die cast aluminium alloy body, tempered sealing glass, aluminium reflector, 3000K LED chips powered from an Osram Optotronic LED driver (model number OT 60/170-240/1A0 4DIMLT2 E).

### Test objective and Method

Determination of the luminaire supply operating parameters Voltage, Current, Power and Power Factor when tested at nominal test voltages of 250V. By the method of LEDLab Electrical Parameter Determination and AEMO Unmetered\_Load\_Guideline\_v1\_0.

### Test configuration

The ten luminaires were operated at 25°C ambient temperature in their normal operational orientation at 250VAC, 50Hz, until the monitored luminaire stabilised as defined in IES LM79. Twenty readings were taken ten seconds apart and the average found. The average value is multiplied by the Calibration Correction given in the latest NATA endorsed calibration report then has Voltmeter losses subtracted based on Watt-meter input impedance and test voltage. The other nine luminaires having operated for the same or more time are switched one by one to Watt-meter for their twenty readings.

Client: Illuminotechnica, Unit 20, 43-45 College St, Gladesville NSW 2111 Australia contact Robert Woodward

### Conclusion

**The Average Load (W) is 56.78W at 0.97 Power Factor.**

Tested by: David Orwin

On 05/07/2018

Authorised Signatory

Date: 09/07/2018

Alain Yetendje

## Results

Time till stabilisation: 2h

### Electrical Measurements

Sample 1	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.347	0.234	56.904	0.972
Min	250.060	0.233	56.884	0.972
Max	250.680	0.234	56.920	0.973
Calibration correction (see Newton 4 <sup>th</sup> calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.32	0.2335	56.84	0.972
Sample 2	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.067	0.233	56.736	0.974
Min	248.620	0.233	56.719	0.973
Max	250.610	0.234	56.753	0.974
Calibration correction (see Newton 4 <sup>th</sup> calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.04	0.2328	56.67	0.974
Sample 3	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.380	0.233	56.732	0.974
Min	249.900	0.232	56.713	0.973
Max	250.630	0.233	56.746	0.975
Calibration correction (see Newton 4 <sup>th</sup> calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.35	0.2324	56.66	0.974

The tests and measurements covered by this document are traceable to Australian national standards of measurement.

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Sample 4	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.333	0.234	56.995	0.974
Min	249.820	0.233	56.979	0.974
Max	250.980	0.234	57.018	0.974
Calibration correction (see Newton 4 <sup>th</sup> calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.30	0.2335	56.93	0.974
Sample 5	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.462	0.234	56.947	0.973
Min	249.990	0.233	56.926	0.972
Max	250.980	0.234	56.969	0.974
Calibration correction (see Newton 4 <sup>th</sup> calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.43	0.2334	56.88	0.973
Sample 6	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.273	0.233	56.843	0.974
Min	249.660	0.233	56.811	0.973
Max	251.020	0.234	56.866	0.974
Calibration correction (see Newton 4 <sup>th</sup> calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.24	0.2330	56.78	0.974

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	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
<b>Sample 7</b>				
Average	250.429	0.233	56.730	0.973
Min	249.050	0.232	56.694	0.972
Max	251.290	0.234	56.759	0.974
Calibration correction (see Newton 4 <sup>th</sup> calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.40	0.2325	56.66	0.973
<b>Sample 8</b>				
Average	250.267	0.233	56.789	0.973
Min	249.590	0.233	56.766	0.972
Max	250.860	0.234	56.810	0.974
Calibration correction (see Newton 4 <sup>th</sup> calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.24	0.2330	56.72	0.973
<b>Sample 9</b>				
Average	250.098	0.240	56.796	0.948
Min	249.640	0.239	56.768	0.947
Max	250.950	0.240	56.815	0.948
Calibration correction (see Newton 4 <sup>th</sup> calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.07	0.2394	56.73	0.948
<b>Sample 10</b>				
Average	249.975	0.234	56.975	0.974
Min	249.290	0.234	56.952	0.973
Max	250.460	0.235	56.996	0.974
Calibration correction (see Newton 4 <sup>th</sup> calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	249.94	0.2338	56.91	0.974

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## Electrical operating parameters of iGuzzini EH Maxi Woody 3K Floodlight

Sample No.	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 1	250.347	0.233	56.836	0.972
Sample 2	250.036	0.233	56.669	0.974
Sample 3	250.349	0.232	56.664	0.974
Sample 4	250.302	0.233	56.928	0.974
Sample 5	250.430	0.233	56.880	0.973
Sample 6	250.242	0.233	56.775	0.974
Sample 7	250.398	0.233	56.662	0.973
Sample 8	250.236	0.233	56.722	0.973
Sample 9	250.067	0.239	56.729	0.948
Sample 10	249.943	0.234	56.907	0.974
<b>Average</b>	<b>250.23</b>	<b>0.23</b>	<b>56.78</b>	<b>0.97</b>

Illustration 1: Electrical operating parameters of iGuzzini EH Maxi Woody 3K Floodlight

## Uncertainties

At a Confidence Level of 95% with a Coverage Factor of 2

**Supply Voltage:**  $\pm 0.07\%$

**Supply Current:**  $\pm 0.14\%$

**Supply Power:**  $\pm 0.19\%$

**Power Factor:**  $\pm 0.005$

**Ambient Temperature:**  $\pm 1^\circ\text{C}$

## Test Equipment Used

*Power meter:* Newton 4<sup>th</sup> Power Analyser KinetiQ Model PPA2520 SN 133-00467

*Power meter integration time (s):* 5

*Calibration Report:* Ausgrid NC17.36115

*Luminaire thermometer:* AMA S No. 1086110-0.1deg

## General Photographs

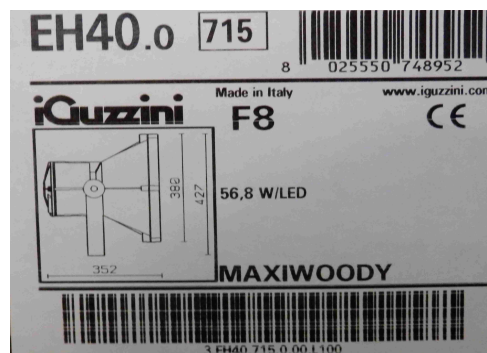


Illustration 2: Luminaire label



Illustration 3: LED driver



Illustration 4: Luminaire



Illustration 5: Setup

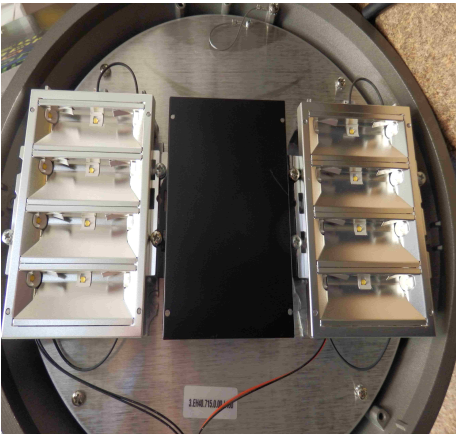


Illustration 6: Optical opening