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## Test Report: 215059

### Testing of Street Light Power for AEMO's NEM Load Table and other tests on optical systems for Thorn Lighting Gladiator Luminaire

*Type of product:* Category V Street Lights  
*Vendor identification:* Thorn  
*Prepared for:* Thorn Lighting  
*Description:* Vandal Resistant surface mount bulk head LED luminaire for security and similar applications.

#### Test objective

Determination of the luminaire supply operating parameters Voltage, Current, Power and Power Factor when tested at 240V

#### Test configuration

Ten luminaires samples were tested. The luminaires were operated at 25°C ambient temperature until the luminaire parameters stabilised. Upon Stabilisation 30 readings were taken one every 10 seconds using a Newton 4<sup>th</sup> Power Analyser. The 30 readings were averaged and the result given for that luminaire sample. The average value is multiplied by the Calibration Correction given in the latest calibration report then has Voltmeter losses subtracted based on Watt-meter impedance and test voltage.

#### Conclusion

#### 22.509 Watts at 0.872 Power Factor

Tested by: David Ford on 17/3/2015 Authorised Signatory Date: 19/3/15

David Ford

## 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:**  $\pm 0.05$

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

## Test Equipment Used

*Power meter:* Newton 4<sup>th</sup> Power Analyser PPA2520

*Power meter integration time (s):* 5

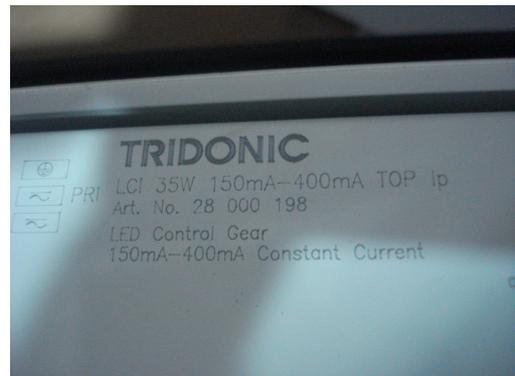
*Calibration Report:* N4L 140895 December 2014

*Luminaire thermometer:* 14076

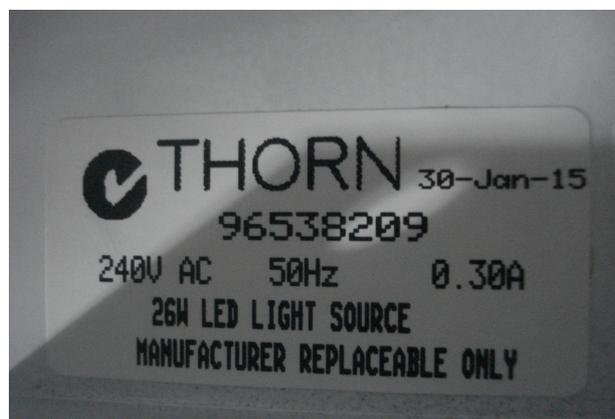
## Photographs



*Illustration 1: Luminaire*



*Illustration 2: Geartray*



## Results

### Electrical operating parameters of Thorn Gladiator

Sample No.	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 1	240.300	107.620	22.56	0.870
Sample 2	240.100	107.590	22.40	0.870
Sample 3	240.000	107.900	22.587	0.874
Sample 4	240.700	107.860	22.517	0.871
Sample 5	240.300	107.810	22.457	0.869
Sample 6	240.200	107.600	22.457	0.873
Sample 7	240.300	107.850	22.557	0.871
Sample 8	240.600	107.250	22.407	0.871
Sample 9	240.200	108.100	22.597	0.874
Sample 10	239.800	108.500	22.557	0.873
<b>Average</b>	<b>240.250</b>	<b>107.808</b>	<b>22.509</b>	<b>0.872</b>

*Illustration 3: Summary result*