## Compliance Testing Report for Australian/New Zealand Standards

**AS/NZS 60598.1:2003 and AS/NZS 60598.2.2:2001**

**Luminaires**

Part 2.2: Particular Requirements — Recessed Luminaires  
(Limited Testing Only)

### Client:
Efficiency Matrix

### Address:
14 Ondine Drive, Wheelers Hill, Victoria 3150

### Report Number:
1104EFFLED_59822  
(Replacement for report no. 1030EFFLED_59822)

### Date of Testing:
29 – 30 October 2009

### File Number:
EFF091022

### Equipment Name:
LED Mitt

### Equipment Model Number:
Ledmitm2

### Equipment Description:
LED Mitt

### Result:
COMPLIES

**Tested by:**  
Hai Ying Qiu  
Electrical Safety Test Engineer

**Approved by:**  
Kenneth Fu  
Electrical Safety Manager

### Date of issue
04 November 2009

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Results appearing herein relate only to the sample(s) tested.  
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SUMMARY OF COMPLIANCE WITH AUSTRALIAN AND NEW ZEALAND STANDARDS AS/NZS 60598.1: 2003 AND AS/NZS60598.2.2: 2001

The EUT (Equipment Under Test) known as LED Mitt, model number Ledmitm2 and was supplied for AS/NZS 60598.1: 2003 and AS/NZS60598.2.2: 2001 testing by Efficiency Matrix of 14 Ondine Drive, Wheelers Hill, Victoria 3150.

This report is the replacement report for the test report no. 1030EFFLED_59822 to include the Brand name and thickness of R5 thermal insulation.

The EUT was tested to clause 12.4 of AS/NZS 60598.1: 2003 and clause 2.12 of AS/NZS 60598.2.2: 2001 for surrounding parts only (timber and fibre glass batt R5)

When the EUT was tested in conjunction with timber and fibre glass batt R5 as the surrounding parts, the EUT COMPLIES with the tested clause 12.4 of AS/NZS 60598.1:2003 and clause 2.12 of AS/NZS60598.2.2:2001.

There is no restriction for installation of the LED Mitt around timber and fibre glass batt R5 as per the Australian Wiring Rules, AS/NZS 3000:2007 clause 4.5.2.3.

Method
Testing was performed in accordance with the standard: 60598.1man

Possible Test Case Verdicts:
- test case does not apply to the test object ....................................................... N(.A)
- test object does meet the requirements ............................................................ P(ass)
- test object does not meet the requirements ..................................................... F(ail)
- test was not performed ....................................................................................... NT(not tested)
- noted ..................................................................................................................... ND
## 2.12 (12) ENDURANCE TEST AND THERMAL TEST

2.12 (12.4) Thermal test (normal operation) Refer to appended tables P

### 12.4 TABLE: temperature rise measurements for normal operation

<table>
<thead>
<tr>
<th></th>
<th>T (°C)</th>
<th>Max. T (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Surrounding parts of heat shield construct of timber</strong>&lt;sup&gt;A)&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timber</td>
<td>27</td>
<td>90</td>
</tr>
<tr>
<td>Inside the Mitt</td>
<td>36.8</td>
<td>Reference</td>
</tr>
<tr>
<td>Ambient</td>
<td>22</td>
<td>Reference</td>
</tr>
</tbody>
</table>

| **Surrounding parts of heat shield construct of fibre glass batt R5**<sup>B)</sup> |        |             |
| Fibre glass batt R5 | 39.8 | 90          |
| Inside the Mitt     | 43.8 | Reference   |
| Ambient              | 22   | Reference   |

<sup>A</sup>) 100mmX100mm timber side pieces were fitted as close as possible against four sides of the insulation Mitt. The thermocouples were placed on the timbers near the insulation Mitt where temperature expected to be highest.

<sup>B)</sup> The 100mmX100mm timber side pieces were removed and replaced with thermal insulation in direct contact with the full circumference of the insulation Mitt. The thermocouple was placed on the thermal insulation near the insulation Mitt where temperature was expected to be highest.

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### ***END OF REPORT BODY***

**Appendix 1 – Critical Component List**

**Appendix 2 – Photographic Record of Sample**
## Appendix 1 – Critical Component List

<table>
<thead>
<tr>
<th>Object / part No.</th>
<th>Manufacturer/ trademark</th>
<th>Type / model</th>
<th>Technical data</th>
<th>Standard</th>
<th>Mark(s) of conformity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transformer</td>
<td>TRIDONIC.ATCO</td>
<td>VIPER</td>
<td>Pri: 230-240V~50/60Hz Sec: 11.6V</td>
<td>-</td>
<td>V99</td>
</tr>
<tr>
<td>LED Lamp</td>
<td>Green light</td>
<td>MR-16</td>
<td>12V, 5W</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ceiling Batt R5.0</td>
<td>Insulco</td>
<td>201504</td>
<td>Thickness 215mm</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

1) An asterisk indicates a mark which assures the agreed level of surveillance
Appendix 2 – Photographic Record of Sample
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![Photographic Record of Sample Image]

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Appendix 2 – Photographic Record of Sample