

# Roads

## Master Specification

### RD-EL-S2 Supply of Luminaries

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## Document Amendment Record

Version	Change Description	Date
1	Initial issue (formerly R51). Major update on Luminaire Requirements; added list of Hold Points including response time; updated referencing.	02/07/19
2	Formatting for publishing	19/09/19
3	General document review and update; Added additional luminaire specifications	August 2021

## Document Management

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## RD-EL-S2 Supply of Luminaries

### 1 General

- 1.1 The luminaire shall comply with the following:
- a) AS/NZS 1158 Lighting for roads and public spaces.
  - b) SA/SNZ TS 1158.6 Lighting for roads and public spaces Luminaires – Performance.
  - c) AS/NZS 3000 Electrical installations (known as the Australian/New Zealand Wiring Rules).
  - d) AS/NZS 60598.1 Luminaires - General requirements and tests.
  - e) AS/NZS 60598.2 Luminaires - Particular requirements.
- 1.2 Where this Part specifies a higher standard than that required by the above Australian Standards, the requirements of this Part will take precedence.
- 1.3 The submission of the luminaire photometric report, .cie and .ies files as evidence of compliance shall constitute a **Hold Point**.
- 1.4 The submission of an isolux plot for the luminaire mounted at a height of 12 m, showing luminaire position, all dimensions, 7.5 lux and 3.5 lux levels, shall constitute a **Hold Point**.

### 2 Luminaire Requirements

- 2.1 The luminaire shall, unless otherwise stated:
- a) be LED (Light Emitting Diode) type;
  - b) be Aeroscreen (full cut-off) type;
  - c) be included in the AEMO table for unmetered lighting, refer to Australian Energy Market Operator (AEMO) approved load tables for unmetered connection point. [https://www.aemo.com.au/-/media/Files/Electricity/NEM/Retail\\_and\\_Metering/Metering-Procedures/NEM-Load-Tables-For-Unmetered-Connection-Points.pdf](https://www.aemo.com.au/-/media/Files/Electricity/NEM/Retail_and_Metering/Metering-Procedures/NEM-Load-Tables-For-Unmetered-Connection-Points.pdf). The submission of the evidence of AEMO load table shall constitute to a **Hold Point**;
  - d) be fitted with a 7-pin NEMA socket preferably on the underside of the luminaire;
  - e) be capable of 0-10 V and Dali 2 dimming and have all necessary components fitted;
  - f) have an efficacy of greater than 120 lm/W;
  - g) have a CCT of 4000K (3000K Optional);
  - h) have a control gear/wiring chamber which is accessible without the use of tools and resistant to damage or access by birds, e.g. cockatoos;
  - i) have a secure attachment point in the control gear/wiring chamber to attach the strain wire which supports the cable in the pole;
  - j) have an Ingress Protection Rating of IP65 or higher for the optical chamber;
  - k) have an Impact Rating of IK06 or higher;
  - l) retain at least 90% of initial lumen level after 100,000 hours of operation;
  - m) be light-grey in colour;
  - n) have different optic distributions available to suit varying road geometries;
  - o) have shields or optical devices available to reduce back-spill;
  - p) have a 10 year and 10 year on-pole warranty available (includes all costs associated with the removal and replacement of the luminaire, materials, equipment, labour etc.).
  - q) at a minimum, have a stepped, adjustable upcast angle between 5° and -20° with increments of 5°; and

- r) be fitted with a bubble level, mounted in the wiring chamber, in a parallel plane to the visor, for assisting with levelling the luminaire.
- 2.2 The submission of a written statement of compliance (in the format of check list) against the above requirements in Clause 2.1 and 2.1q) shall constitute a **Hold Point**.

### 3 Hold Points

- 3.1 The following is a summary of Hold Points for the documents referenced in this Part:

Document Ref.	Hold Point	Response Time
1.3	Submission of Photometric Report, .cie and .ies files from NATA accredited or similar testing facility	10 Working Days
1.4	Submission of luminaire isolux plot for mounting height of 12 metre showing 7.5 and 3.75 lux levels	10 Working Days
2.1c)	Evidence of luminaire inclusion in the AEMO load table for unmetered loads	5 Working Days
2.2	Submission of written statement of compliance (in the format of check list) against the requirements in Clause 2.1 and 2.2	10 Working Days