SA Power Networks

Technical Standard – TS101

Public Lighting – Design and Installation

Published: 10 November 2026



Revision Notice:

Date	Details	Author	Authorised
17 July 2023	• Updated to New LED Luminaires: – Table 4: 14 W LED, Bourke Hill MK 2, Cat. P, Black (EM 4125) – Table 6: 80 W, 100 W & 150 W LED, Parkville MK 2, Cat. V, Black (EM 4126, EM 4127, EM 4128 Respectively)	A Pradhan B Niculescu	M Napolitano
10 November 2026	• Document modified to reflect latest standard template. • Titles and responsible teams updated as required • Appendix updated to reflect latest luminaire and associated mounting equipment and accessories. • Standard Category 'P' fittings are now 3000K rated with introduction of StreetLED4. • Updates to mounting accessories and optic tuners and anti-glare louvres • Added Sylflood to Appendix B	D Teng	M Pynn

SA Power Networks:

SA Power Networks, ABN 13 332 330 749, a partnership of:

Spark Infrastructure SA (No.1) Pty Ltd, ABN 54 091 142 380
Spark Infrastructure SA (No.2) Pty Ltd, ABN 19 091 143 038
Spark Infrastructure SA (No.3) Pty Ltd, ABN 50 091 142 362
each incorporated in Australia
CKI Utilities Development Limited, ABN 65 090 718 880
PAI Utilities Development Limited, ABN 82 090 718 951
each incorporated in The Bahamas

1 Anzac Highway, Keswick, South Australia, 5035.

SA Power Networks Disclaimer:

1. Unless otherwise agreed in writing between SA Power Networks and a specific person or entity, SA Power Networks makes no representation that this standard is appropriate for any other purpose and, to the extent permitted by law, has no liability to a person who (without SA Power Networks written consent) purports to use the standard for any purpose(s) other than the purpose described in this standard. SA Power Networks has made no assessment of any nature whether this standard is appropriate for use in any other circumstance than that noted in paragraph 1.
2. Nothing in paragraph 1 waives or licences any copyright SA Power Networks has in this document.
3. This standard is subject to change from time to time.

SA Power Networks Copyright©2026:

This publication is copyright protected.
SA Power Networks reserves to itself all rights in such material. You shall not reproduce any content of this document by any process without first obtaining the
SA Power Networks permission, except as permitted under the Copyright Act 1968.
All rights reserved.

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

Contents

Figures **4**

Tables **4**

1. Introduction **5**

2. Definitions and Abbreviations **5**

2.1 Definitions 5

2.2 Abbreviations 6

2.3 Terminology 6

3. Relevant Rules, Regulations, Standards and Codes **7**

3.1 Standards and Codes 7

3.2 Legislation and Regulations 8

4. Drawing requirements **9**

4.1 Non-Standard Construction Drawings 9

5. Lighting System Categories **10**

5.1 Category 'P' Lighting Systems 10

5.2 Category 'V' lighting systems 11

6. Emerging Smart Control Technologies **11**

7. Design Requirements **11**

8. Documentation **12**

9. Columns **13**

9.1 Location/Alignment 13

9.2 Columns orientation 13

9.3 Column Setback 13

9.4 Mechanical Protection 14

10. Installation Works **14**

10.1 General 14

10.2 Public Lighting on Stobie Poles 14

10.3 Public Lighting Not Owned By SA Power Networks 15

10.4 Security lighting 15

11. Asset Labelling **16**

11.1 Road Name Signs and Banners on Lighting Columns 16

12. Extent of Maintenance **16**

13. Connection Procedure for Contractors **16**

14. Energisation **17**

15. Who should you talk to? **18**

Appendices **19**

A. Streetlight luminaires **19**

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.

© SA Power Networks 2026

PUBLIC

A.1 Category ‘P’ Standard Luminaires 19
A.2 Category ‘P’ Decorative Luminaires 20
A.3 Category ‘V’ Standard Luminaires 21
A.4 Category ‘V’ Decorative Luminaires 21
A.5 Photo Electric ‘PE’ cells 22
A.6 Mounting Accessories 23
A.7 Optic Tuners and Anti-Glare Louvres 24
B. Security Lights 26

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

Figures

Figure 2: Indicative Location and Alignment of Public Lighting Column (Not to Scale) 13
Figure 3: Typical Public Lighting Bollard Heavy Duty (Not to Scale) 14

Tables

Table 1 Category ‘P’ Lighting Systems 10
Table 2 Category ‘V’ Lighting Systems 11
Table 3-Category ‘P’ Standard Luminaires 19
Table 4-Category ‘P’ Decorative Luminaires 20
Table 5-Category ‘V’ Standard Luminaires 21
Table 6-Category ‘V’ Decorative Luminaires 21
Table 7-Photo Electric ‘PE’ Cells 22
Table 8 Mounting Accessories 23
Table 9 Optic Tuners and Anti-glare Louvres 24
Table 10 Security Lights 26

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

1. Introduction

This document is intended to establish the standard for the design and installation of public and security lighting that will be connected to SA Power Networks' electrical distribution network.

The specifications in this technical standard are applicable to all parties engaged in the design, installation, or modification of lighting systems within new installations, extensions, or alterations across the electrical distribution network of SA Power Networks.

2. Definitions and Abbreviations

2.1 Definitions

Connection Point	The 'connection point' also has the same meaning as 'point of supply' defined in AS/NZS 3000. The point of supply established between the SA Power Networks and the customer.
Contractor	A contractor who is a suitably accredited installer (full or provisional) engaged by the customer and has satisfied SA Power Networks' terms and conditions (ie 3302) to undertake the civil and electrical installation works.
CMEN	Common Multiple Earth Neutral - has a neutral that is common to the HV (high voltage) and LV (low voltage) systems. SA Power Networks uses CMEN as its standard earthing system.
Customer	Is the customer as set out in the project-specific offer letter.
Customer's Agent	A contractor or designer engaged by the customer.
Designer	A person who is suitably accredited designer (full or provisional) engaged by the customer and has satisfied SA Power Networks' terms and conditions (ie 3302) to undertake the design work.
Distribution Network	The assets (eg poles, wires, underground cables, transformers, substations etc) operated by SA Power Networks, which transports electricity to and from a customer's connection point.
Frangible Column	Is a lighting column designed to collapse in a controlled manner on impact.
Owner/Landowner	The owner/landowner is the person or entity that is the registered proprietor/owner of the land as recorded at the Lands Titles Office. All easement agreements shall be with the owner/landowner.
Lighting Column	An apparatus used to support a luminaire at a desired height and outreach.
Luminaire	An apparatus which distributes filters or emits light from one or more light emitting devices. It contains all the parts necessary for fixing and protecting the light emitting devices and circuit auxiliaries.
MEN	Multiple Earthed Neutral is also known in IEC 60364 as a TC-N-S earthing system. In SA Power Networks' MEN system, the LV earthing/neutral system is kept distinctly separate from the HV earthing systems.
Pole	To be understood as a Stobie pole, unless stated otherwise.
Residential Column	A lighting column used for street lighting of category 'P' installations including roads. Typically, below 7.0 m.
Vehicular Column	A lighting column used for street lighting of category 'V' installations including roads. Typically, above 7.0 m.
Tariff	The 'Tariff / regular fee' applies where an unmetered light is connected to SA Power Networks infrastructure. For detail of tariff types refer to SA Power Networks' Manual 21.
Separation Distance	Is either the vertical and/or the horizontal distance, measured between any SA Power Networks' plant and the third-party's infrastructure. Typically measured on centre unless otherwise specified.

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

Vested	An asset that is constructed on behalf of the customer or their agent where ownership is transferred to SA Power Networks.

2.2 Abbreviations

AEMO	Australian Energy Market Operator
AS/NZS	A jointly developed Australian and New Zealand Standard
CLER	Customer Lighting Equipment Rate
CMEN	Common Multiple Earthed Neutral Systems
CMS	Customer Management System
DIT	The Department of Infrastructure and Transport
eCoC	Electrical Certificate of Compliance
EO	Energy Only
HV	High Voltage
LED	Light Emitting Diode
LV	Low Voltage
MEN	Multiple Earthed Neutral Systems
NAP	SA Power Networks' Network Access Permit
NEMA	National Electrical Manufacturers Association
NICC	SA Power Networks' Network Information for Contractors and Customers
TSM	SA Power Networks' Technical Standards Manager
OTR	The Office of Technical Regulator
SIR	SA Power Networks' Service & Installation Rules
SLUoS	Street Light Use of System
TS	SA Power Networks' Technical Standard

2.3 Terminology

Shall or Must	Indicates a mandatory requirement.
May or Should	Indicates a recommendation that will not be mandatory but can be imposed as deemed appropriate by SA Power Networks.

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

3. Relevant Rules, Regulations, Standards and Codes

3.1 Standards and Codes

The following listed documents are for additional information and other documentation may be required on a project specific basis.

Please Note: It is the responsibility of the customer/customer's agent to ensure you have complied with all applicable, SA Legislative Regulations (under Acts), ESCOSA/ENA/AEMC/IEC documentations, relevant AS/NZS standards, the SA Power Networks publications, and you have ensured their current publications, before implementing them.

Australian Standards publications

AS/NZS 1158.1.1	2022	Lighting for roads and public spaces – Vehicular traffic (Category V) lighting – Performance and design requirements
AS/NZS 1158.1.2	2010	Lighting for roads and public spaces – Vehicular traffic (Category V) lighting – Guide to design, installation, operation and maintenance
AS/NZS 1158.3.1	2020	Lighting for roads and public spaces -Pedestrian area (Category P) lighting – Performance and design requirements
AS/NZS 1158.4	2024	Lighting for roads and public spaces – Lighting of pedestrian crossings
AS/NZS 3000	2018	Electrical installations (known as the Australian/New Zealand Wiring Rules)
AS/NZS 3008.1.1	2025	Electrical installations – Selection of cables – Cables for voltages up to and including 0/6 kV a.c. and up to and including 1500 V d.c. – Typical Australian installation conditions
AS/NZS 3017	2022	Electrical installations – Verification by inspection and testing
AS/NZS 3019	2022	Electrical installations – Periodic assessment
AS/NZS 4026	2008	Electric cables – For underground residential distribution systems
AS/NZS 4282	2023	Control of the obstructive effects of outdoor lighting
AS 4506	2024	Metal finishing – Thermoset powder coatings
AS 5577	2013	Electricity network safety management systems
AS 60038	2022	Standard voltages

SA Power Networks publications

Network Information for Customers and Contractors	
NICC210	Signage, Banners, and Temporary Equipment on SA Power Networks' Assets
NICC400	Information for an Applicant undertaking a Contestable Extension
NICC401	Information on Network Design and Installation by an External Contractor
NICC402	Public Lighting – Ownership & Approval Process
NICC404	Working in the Vicinity of SA Power Networks' Infrastructure – Network Access Permit Process
Technical Standards	
TS085	Trenching and Installation of Underground Conduits and Cables (up to and including 33kV
TS099	Distribution and Transmission CAD Drafting Standard
TS100	Electrical Design Standard for Underground Distribution Network (up to and including 33 kV)

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

TS105A (Forms)	Standard Forms for SA Power Networks' Underground & Overhead Electricity Distribution and Transmission Network
TS107	Overhead Line Design Standard for Electrical Transmission and Distribution Systems
TS109	Earthing of the Distribution Network

Manuals

Manual 14	Safety, Reliability, Maintenance and Technical Management Plan
Manual 18	SA Power Networks' Connections and Ancillary Network Services
Manual 21	Public Lighting Tariff Manual
Manual 32	Service and Installation Rules (SIR)

3.2 Legislation and Regulations

This section provides a list of the relevant legislation and regulations which shall apply to the design, manufacture, installation, testing and commissioning, and operations and maintenance of all plant and equipment for the distribution network.

In an event where there is any inconsistency between legislation and regulations and these technical requirements, the legislation and regulations shall prevail.

- Electricity Act 1996 and Electricity (General) Regulations 2012
- Environment Protection Act 1993 and Environment Protection Regulations 2023
- Native Vegetation Act 1991 and Native Vegetation Regulations 2017
- Planning, Development and Infrastructure Act 2016 and Planning, Development and Infrastructure (General) Regulations 2017
- Work Health & Safety Act 2012 and Work Health & Safety Regulations 2012
- National Electricity Rules

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

4. Drawing requirements

External designs for public lighting shall be of a standard that uses the SA Power Networks' standards and conventions.

The following design standards will apply:

(1) Design drawing format, symbology, files lodgement and issuing process shall comply with TS099.
(2) Ensure that current E-drawings and standard design templates are considered.
(3) Bracket details, including relevant supply item numbers, E-drawing references, mounting heights, and outreaches to be shown on drawing.
(4) Identify service points for all new lighting circuits.
(5) Depict existing tree interference.
(6) Depict precise physical site features (e.g. side streets, block boundaries) in enough detail to precisely locate and describe the site.
(7) Include details of the tariff selection nominated by the ongoing tariff billing customer.
(8) Confirmed, dimensioned locations of constructed/altered/removed assets relative to enduring site features (on 'As Constructed' drawing).

SA Power Networks shall be kept in receipt of the most recent design drawing revisions throughout the life of the project up to and including the 'As Constructed' revisions.

4.1 Non-Standard Construction Drawings

If a design requires a non-standard E-drawing, the designer shall submit a request and shall acquire a written approval from SA Power Networks' Equipment Manager.

The request shall be accompanied by an illustration of the proposal, i.e. reworked E-drawing(s), sketches and or photographs of the proposed arrangement.

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

5. Lighting System Categories

The lighting designs are categorised as following:

- Category ‘P’ for lighting that is applicable to roads and other outdoor public areas for which the visual requirements of pedestrians are dominant, e.g. local roads, outdoor shopping precincts.
- Category ‘V’ for main roads and freeways.

5.1 Category ‘P’ Lighting Systems

Table 1 summarises SA Power Networks' standard LED luminaires for 'P' category lighting systems. For further details on the luminaires, refer to Appendices A.1 and A.2.

Luminaires used on 'V' category roads can also be utilised for 'P' category lighting systems. However, specific glare requirements shall be in accordance with AS/NZS 1158 series.

Normally, the council, DIT, or private customers own and maintain Pathway and Cycle Paths (Category PP), Public Activity (Category PA), Connecting Elements (Category PE), and Public Carparks (Category PC). The customer will nominate the appropriate public category that is to be considered for the lighting design.

Table 1 Category ‘P’ Lighting Systems

SA Power Networks’ Standard Columns/Stobie Poles	SA Power Networks’ Standard LED Luminaires
4.5 m post top	Kensington (LED) or B2001 LED
4.5 m side outreach with 0.15 m or 0.6 m outreach	StreetLED
4.5 m post top with Top entry 0.875 m decorative outreach	Bourke Hill LED
6.4 m with 0.5 m integrated outreach	StreetLED
Stobie Poles (various mounting heights and outreaches)	StreetLED

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

5.2 Category 'V' lighting systems

Table 2 summarises the standard LED luminaires for 'V' category lighting systems by SA Power Networks. For further details, refer to Appendices A.3 and A.4.

Table 2 Category 'V' Lighting Systems

SA Power Networks' Standard Columns/Stobie Poles		SA Power Networks' Standard LED Luminaires
Height	**With Outreach**	
0.9 m Column	2.0 m and 3.0 m	RoadLED Midi LED Aeroscreen
10.5 m Column	2.0 m and 3.0 m	
Stobie Poles	Various	
7.5 m Column	3.0 m	Parkville Luminaires
9.0 m Column	3.0 m	
10.0 m Column	3.0 m	

6. Emerging Smart Control Technologies

For information on emerging smart control technologies/devices, contact SA Power Networks' Lighting Services Team via roadlighting@sapowernetworks.com.au. Refer to NICC402 for more details.

7. Design Requirements

The choice of public light source should be based on an analysis of all the factors relevant to the application, including aesthetics, environmental factors, luminaire mortality, and lumen depreciation, luminaire installation and maintenance cost, energy use, etc.

The designer shall ensure that:

(1) The public lighting electrical design shall comply with this technical standard and all relevant requirements stated in Section 3.
(2) Any deviations to AS/NZS 1158 are to be approved by the road controlling authority.
(3) Provide public lighting design information and authorisation forms as stated in NICC402.
(4) The easements shown on the design shall reflect the easements that have been negotiated with, and agreed to, by property owners. Refer to TS102, for more details.
(5) All clearances shall comply with the SA Electricity (General) Regulations 2012, TS085, and those stipulated by other utilities.
(6) Appropriate electrical safety clearances are maintained unless SA Power Networks agrees to determine appropriate bracket use and clearances.
(7) Where SA Power Networks is to own and maintain the asset, luminaires and brackets shall be of types which have been approved for use by SA Power Networks. Also refer to Appendix A.6 and A.7 for approved mounting accessories and optic tuners/anti-glare louvres.
(8) Proposed mounting heights and outreaches are to be shown on the drawing and should be appropriate for the luminaire, utilising the SA Power Networks' standard brackets and mounting conventions.
(9) Underground services shall be supplied from existing service arrangements wherever practicable.
(10) The ideal proposed service points for all underground supplied lighting columns are identified on the design drawing.

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

(11) Loop in - Loop out arrangements is required for underground supply of multiple lighting columns as per the appropriate E-drawings arrangements.
(12) From time-to-time SA Power Networks may need to relocate Stobie poles by up to 2.0 m, if a damaged pole cannot be reinstalled in its current location. Designers need to consider this in their lighting design to ensure compliance to AS/NZS 1158, if a luminaire is installed on a Stobie pole.
(13) New luminaires shall be individually controlled by photo-electric cells or smart control devices and any existing switch wire shall be removed as part of the design.
(14) Proposed mounting brackets shall not pass between existing HV and LV conductors.
(15) Where a luminaire is to be installed under existing HV or LV wires, the design shall meet clearance requirements with any access panels or hatches in their open state.
(16) The maximum permissible voltage drop per circuit is as per AS/NZS 3000 and Manual 32. However, cable sizing shall be as per TS100.
(17) Highways cross arm brackets and traffic route brackets are only suitable on steel cross arms. Where these brackets are required, the designer shall indicate the type of existing construction with reference to the relevant E-drawing and identify the need for any replacement cross arm.

8. Documentation

The following documentation should be required to demonstrate compliance with relevant standards:

(18) Details of all elements of the road or area to be lit.
(19) The Department of Infrastructure and Transport (DIT)/Council confirmation of lighting category requirements.
(20) Details of the lighting arrangement and installation geometry, e.g. spacing, mounting height, outreach up cast angle.
(21) Pole and bracket loading calculation.
(22) Details of the cable size and luminaires to be used.
(23) Origin of photometric data for the lamps and luminaires.
(24) Name and source of the computer program used.
(25) Details of the maintenance factor used in the calculation.
(26) Details delineating contestable and non-contestable construction works.
(27) Isolux plots depicting compliance.
(28) For each area or road element, the design method used, and the values of the light technical parameters obtained, compared with the limiting values required by the relevant standards.
(29) Details of bracket selections and relevant stock numbers, where more than one selection is available the designer shall consider which is the most appropriate.
(30) Details of additional modifiers and their relevant stock codes, e.g. visors, louvres or shields, where more than one selection is available the designer shall consider which is the most appropriate
(31) Details of control devices and/or smart control devices and systems.
(32) Lighting columns if applicable and their relevant stock numbers, where more than one selection is available the designer shall consider which is the most appropriate
(33) Details regarding the proposed tariff that the customer has agreed to. Where multiple tariffs span a single design area, sufficient detail shall be provided to delineate the tariff arrangement per luminaire.

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

9. Columns

9.1 Location/Alignment

For street lighting upgrades or subdivisions in residential allotment areas, public lighting columns shall be located within road reserve on production to the side boundary of an allotment. This alignment shall be used regardless of the angle between the side boundary and front boundary Refer to Figure 1 for an example.

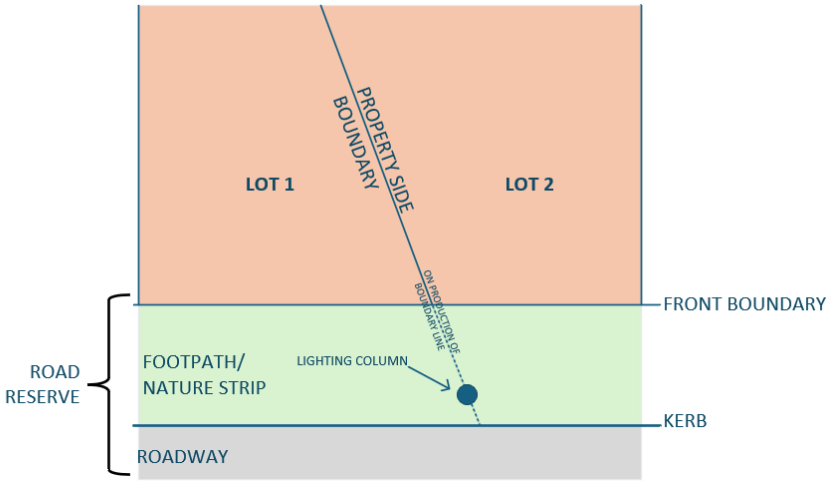


Figure 1: Indicative Location and Alignment of Public Lighting Column (Not to Scale)

There will be occasions when the designer needs to consider other locations to ensure the public lighting design is cost effective yet satisfies the council's requirements. SA Power Networks will consider a design with a column located in a position other than an extended boundary on the proviso that titles have not been issued and the designer has the approval of the developer and the respective council.

A location other than the boundary should consider the future building envelope.

For coastal regions it is recommended that galvanized columns be used in lieu of powder coated columns due their higher corrosion resistance.

9.2 Columns Orientation

The fuse panel hatch is to be positioned at right angle to the traffic, opposite roadside. If a column is positioned close to a structure such as a wall or fence the fuse panel hatch is to be positioned on the non-traffic side.

For double outreach columns the fuse panel hatch is to be in line with the traffic.

9.3 Column Setback

For both category 'P' and category 'V' installations, public lighting columns are to be set back from the face of kerb to the centre of the column, a minimum distance of 700 mm for straight sections of road and 1000 mm at the road intersections.

The type of pole, either frangible, impact absorbing or rigid, that can be used at different pole setback distances is described in AS/NZS 1158.1.2.

The location of public lighting column should be affected where the verge is very narrow, i.e. less than 2.5 m. The caisson for a column shall be external to the common service trench.

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

9.4 Mechanical Protection

Where there is no raised kerbing, the protection of the public lighting column is required in a trafficable area to prevent from vehicular impacts/damages. Flush kerbing is not considered as protection from traffic.

Mechanical protection, such as bollards or guard rails, are to be specified and approved by the customer (DIT/council) and are required to allow operational access to the column and fuse panel. The bollards are to be maintained by the customer/landowner.

Installation of two fixed bollards (minimum) placed 100 mm in front of column with 600 mm spacing between them. The distances are measured with the column placed centrally between the bollards. Refer to Figure 2.

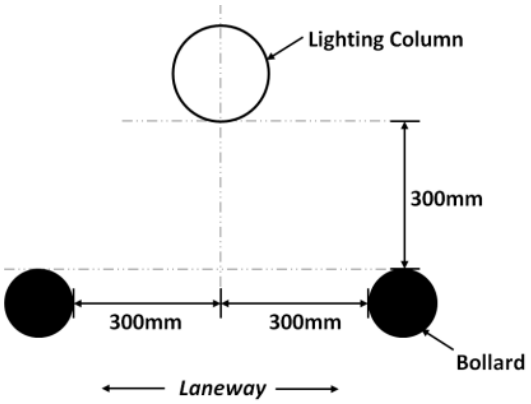


Figure 2: Typical Public Lighting Bollard Heavy Duty (Not to Scale)

10. Installation Works

10.1 General

When contestable works are nominated, the customer is responsible for ensuring that their chosen electrical contractor, who is installing SA Power Networks' public lighting (excluding security lighting) to be vested, has the appropriate accreditation (either full or provisional). The contractor shall also adhere to SA Power Networks' terms and conditions (i.e. 3302) and specifications.

(1) For SA Power Networks' owned installations, the installations are to be in accordance with the relevant E-drawings.

(2) For a CLER, Energy only or Metered supply, the contractor shall satisfy AS/NZS 3000 and council/DIT requirements.

(3) All luminaries to be installed under a CLER or Energy only unmetered supply should be listed on the AEMO unmetered load table. These installations shall be separated from any SA Power Networks' public lighting installation.

10.2 Public Lighting on Stobie Poles

The public lighting installation including brackets on Stobie poles in MEN areas have a potential concern for safety risk, therefore the following restrictions apply in MEN areas:

(1) On poles where LV mains are attached below HV mains. MEN suitable bracket and adaptors are to be used.

(2) If there are no LV mains or services on a HV pole, a small transformer should be installed to supply the public light only. (Note: No customer connection is permitted to this transformer).

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

(3) If several lights are required to be erected in a MEN area, lighting columns and underground wiring can be used, however, such columns are not permitted to be installed directly under the HV line. Preferably install on the opposite side of the road.
(4) Public lighting systems are prohibited on 66 kV poles without CMEN earthing. The preference is to consider alternatives rather than installing public lighting systems on 66 kV poles. However, if it is the only option then approval should be sought from SA Power Networks.

10.3 Public Lighting Not Owned By SA Power Networks

If a public lighting installation does not meet the standard requirements of SA Power Networks' assets, another party, such as council/DIT, will be responsible. The installation can be energised under the following conditions:

(1) CLER scheme
(2) Energy only
(3) Metered supply

These electrical installations shall comply with AS/NZS 3000, Manual 32: Service and Installation Rules, and any additional requirements stipulated by council/DIT.

10.4 Security lighting

The purpose of the security lighting is to provide general illumination to a customer's premises. Security lighting luminaires are offered by SA Power Networks. Refer to Appendix B, for more details.

Conditions applicable to the installation of security lighting includes:

(1) Kanon security luminaire should be attached to SA Power Networks' owned Stobie poles. While the Sylflood should be attached to SA Power Networks' owned 9.0 m and 10.5 m tubular rigid lighting columns. Neither may be attached to columns of 6.5 m or less.
(2) For installation on Stobie poles/Columns, refer to the calculation methods outlined in TS107.
(3) SA Power Networks' owned security lights are not to be installed on DIT columns.
(4) SA Power Networks' owned security lights are not to be installed and aimed across freeways, main and arterial roads (V-Category roads).
(5) For P-Category roads, security lights should be installed across the road from the intended property however shall be aimed directly at a 90-degree angle to the road, and not into oncoming traffic.
(6) Antiglare shields are to be fitted to the Kanon LED floodlights as standard
(7) Antiglare shields are to be fitted to all security lights.

Security lighting will be removed, and the contract terminated if reasonable objections are raised from adjoining property owners concerning obtrusive light and the security light cannot be satisfactorily refocused to alleviate the concerns.

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

11. Asset Labelling

All public lighting assets shall be clearly labelled as per the requirements of AS/NZS 60598 namely

(1) Lamp type
(2) Wattage
(3) Year of manufacture
(4) Lamp envelope
(5) Aeroscreen

All public lighting assets forming a CLER, Energy only or Metered supply scheme shall be clearly identified on the column as the respective owner's asset.

All asset identification labels are required to be durable to all weather conditions and clearly visible from the ground. Refer to Manual 32, for more details.

Labels on the column shall comply with following requirements:

For CLER Installations:

(1) Text height = 25 mm, Colour = black text on white background
(2) Text stating: 'CLER and Council/DIT Name and Phone Number'

For Energy Only Installations:

(1) Text height = 25 mm, Colour = black text on white background
(2) Text stating: 'EO, Council/DIT Name and Phone Number'

For Metered Installations:

(1) Text height = 25 mm, Colour = black text on white background
(2) Text stating: 'Metered, Council/DIT Name and Phone Number'

11.1 Road Name Signs and Banners on Lighting Columns

Refer to NICC210, for more details.

12. Extent of Maintenance

The responsible party for maintaining public lighting assets and the extent of maintenance depends on the tariff agreement as defined in Manual 21.

13. Connection Procedure for Contractors

(For CLER, Energy Only and Metered Supplies)

(1) Electrical contractor installs lights and associated cabling to appropriate standards.
(2) Electrical contractor shall apply for a Public Lighting Energy only (EO)/CLER connection/disconnection via the online form https://forms.apps.sapowernetworks.com.au/formnws for each lighting connection point. Design drawings shall then be emailed through to roadlighting@sapowernetworks.com.au.
(3) Electrical contractor fills out 'Electrical Certificate of Compliance' (eCoC) forms for each lighting installation.
(4) Electrical contractor forwards eCoC forms to the relevant council/DIT for signature/approval, as the council/DIT is the ultimate owner.
(5) Electrical contractor leaves a printed copy of the completed eCoC forms on site in each lighting column with a site location plan in one column. Electrical contractor to contact SA Power Networks' Builders and Contractors on 1300 650 014 to arrange a date for Connect Officer to attend. SA Power Networks' Connect Officer verifies the installation and collects eCoC forms and checks site location plan before installing fuses in each connection point on the appointed day.
(6) Electrical contractor verifies that SA Power Networks' connection point is energised.
(7) Electrical contractor ensures subdivision is energised.

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

(8) SA Power Networks' Connect Officer forwards eCoC forms to SA Power Networks' Facilities Records Coordinator and Lighting Services team. After processing they will be forwarded to the energy retailer to commence charging the council/DIT for the lighting at the relevant tariff.

14. Energisation

An underground supplied public lighting installation can only be completed once an energised connection point is provided.

For connections of public lighting on a standard TFI or PLC tariff, the public lighting will be energised by SA Power Networks at the time the subdivision is energised unless otherwise advised by the council.

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

15. Who should you talk to?

1. **Lighting Services / Road Lighting Group**
   - Website: https://www.sapowernetworks.com.au/connections/lighting/public-lighting/
   - Email: roadlighting@sapowernetworks.com.au

2. **SA Power Networks' Customer Solutions Managers:**
   - Website: https://www.sapowernetworks.com.au/public/download.jsp?id=315697

3. **General Enquiries:**

   Contact SA Power Networks' Customer Service Team:
   - Website: https://www.sapowernetworks.com.au/contact-us, or
   - Email: customerservice@sapowernetworks.com.au, or
   - Call: 13 12 61

4. **Network Access Permit Enquiries:**

   Contact SA Power Network-Customer Solutions-Connection Central Team during business hours 8:00 am to 3:00 pm, Monday to Friday:
   - Email: connectioncentral@sapowernetworks.com.au, or
   - Call: (08) 8404 5409

5. **Before You Dig Australia (BYDA) Enquiries:**
   - Website: https://www.byda.com.au/

6. **Service and Installation Rules Enquires:**

   Contact SA Power Networks' Network Connections Manager:
   - Email: appointments@sapowernetworks.com.au, or
   - Call: (08) 8404 4898

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

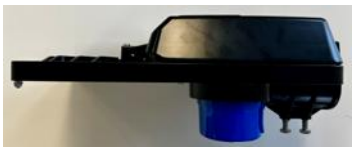
PUBLIC

Appendices

A. Streetlight luminaires

A.1 Category 'P' Standard Luminaires

Table 3-Category 'P' Standard Luminaires

Description	Rating/Type	Lamp Lumen Output	Maintenance Factor	Catalogue No.	Photo
StreetLED4 14 W LED	14 W LED Black Aeroscreen 3000 K	1972	0.80	EM5101	 (Black version)
	14 W LED Raw Aeroscreen 3000 K	1972	0.80	EM5102	
StreetLED4 20 W LED	20 W LED Black Aeroscreen 3000 K	2830	0.80	EM5103	
	20 W LED Raw Aeroscreen 3000 K	2830	0.80	EM5104	

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

A.2 Category 'P' Decorative Luminaires

Table 4-Category 'P' Decorative Luminaires

Description	Rating/Type	Lamp Lumen Output	Maintenance Factor	Catalogue No.	Photo
Kensington Mk 2 16 W LED Black	16 W LED 4000 K	1724	0.80	EM 4032	
Bourke Hill MK 2 14 W LED Black	14 W LED 4000 K	1969	0.80	EM 4125	
B2001 Mk 2 17 W LED Black	17 W LED 4000 K	1680	0.80	EM 3130	

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

A.3 Category 'V' Standard Luminaires

Table 5-Category 'V' Standard Luminaires

Description	Rating/Type	Lamp Lumen Output	Maintenance Factor	Catalogue No.	Photo
RoadLED Midi LED Aeroscreen	60 W LED Black 4000 K	6880	0.80	EM 4116	
	60 W LED Grey 4000 K	6880	0.80	EM 4106	
	80 W LED Black 4000 K	9064	0.80	EM 4117	
	80 W LED Grey 4000 K	9064	0.80	EM 4107	
	100 W LED Grey 4000 K	12396	0.80	EM 4105	
	120 W LED Grey 4000 K	14745	0.80	EM 4109	
	150 W LED Black 4000 K	17778	0.80	EM 4118	
	150 W LED Grey 4000 K	17778	0.80	EM 4108	

A.4 Category 'V' Decorative Luminaires

Table 6-Category 'V' Decorative Luminaires

Description	Rating/Type	Lamp Lumen Output	Maintenance Factor	Catalogue No.	Photo
Parkville MK 2 LED Black	80 W LED 4000 K	11595	0.80	EM 4126	
	100 W LED 4000 K	14341	0.80	EM 4127	
	150 W LED 4000 K	23423	0.80	EM 4128	

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

A.5 Photo Electric ‘PE’ cells

Table 7-Photo Electric ‘PE’ Cells

Description	Rating/Type	Light Control	Catalogue No.	Photo
Standard PE Cell	10 A NEMA	Ambient Light Sensor	EM 1435	
Smart PE Cell	902-928 MHz	Programmable/Controllable	Non-Stock Item	

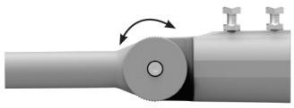
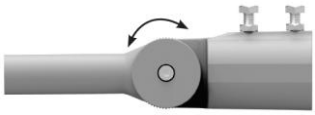
WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

A.6 Mounting Accessories

Table 8 Mounting Accessories

Description	Adjustment Capabilities	Compatible with the following luminaires	Catalogue No.	Weight (Kgs)	Photo
Tilt Adaptor	5 to 0 degrees	RoadLED	DL 1080	0.5	
Variable Tilt Adaptor	0 to 90 degrees	RoadLED	DL 1081	2.0	
Tilt Adaptor	5 to 0 degrees	StreetLED4	DL3140	0.2	
Variable Tilt Adaptor	0 to 90 degrees	StreetLED	DL 1083	2.0	
Post Top side entry outreach long, 650 mm length (black) *See Note 1	5 degrees	StreetLED	WA 4525	3.3	
Post Top side entry outreach long, 650 mm length (galv) *See Note 1	5 degrees	StreetLED	WA 4526	3.3	
Post Top side entry outreach short, 150 mm length (black) *See Note 1	5 degrees	StreetLED	WA 4534	2.8	

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

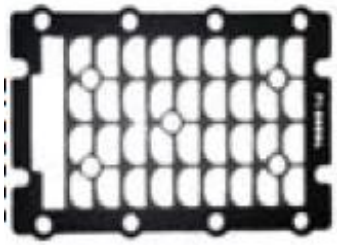
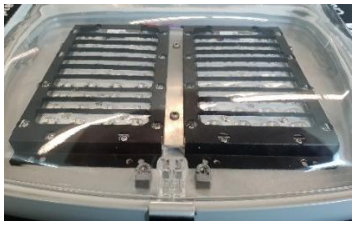
PUBLIC

Post Top side entry outreach short, 150 mm length (galv) *See Note 1	5 degrees	StreetLED	WA 4535	2.8	

*Note 1: Outreach for post top conversion to side entry.

A.7 Optic Tuners and Anti-Glare Louvres

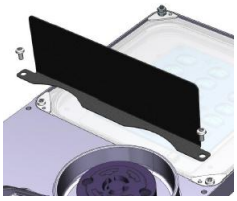
Table 9 Optic Tuners and Anti-glare Louvres

Description	Compatible with the following luminaires	Catalogue No.	Weight (Kgs)	Photo
Rear Cutoff Optic Tuner	RoadLED Midi	EM 3125	0.2	
Anti-glare Louvre	RoadLED Midi	EM 3129	0.5	
Rear Cutoff Optic Tuner	Kensington LED Bourkehill LED	EM 3126	0.2	
Narrow Road (i.e. Front and Rear Cutoff) Optic Tuner	Kensington LED Bourkehill LED	EM 3127	0.2	

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

Rear glare shield	StreetLED4	EM3137	0.2	
Front glare shield	StreetLED4	EM3138	0.2	
Pathway glare shield	StreetLED4	EM3139	0.2	Pathway glare shield is a combination of both Front and Rear glare shields.

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC

B. Security Lights

Table 10 Security Lights

Description	Rating/Type	Lamp Lumen Output	Maintenance Factor	Catalogue No.	Photo
Kanon 180 W LED (For Stobie pole installation only)	180 W LED 4000 K	22,200	EM 1830	12.9	
Sylflood 155 W LED (For 9.0 m and 10.5 m rigid public lighting column installation only)	155 W LED 4000 K	23,331	EM 1835	8.5	

WARNING: printed copies of this document ARE DEEMED UNCONTROLLED. The most up-to-date version is located on SAPN Intranet/Internet.

The use of this document is subject to the conditions stated in SA Power Networks disclaimer at the front of this document.
© SA Power Networks 2026

PUBLIC