

Street Lighting Systems



Transport
Roads & Maritime
Services

Procedural Guideline

ILC-ITS-TP0-002-G04

Introduction

This guideline is intended to complement procedure ILC-ITS-TP0-002 which is a generic description of processes for installation of Intelligent Transport System devices and systems.

When working on an installation of Street Lighting project it is advised to refer to both documents to provide the basic information required.

Description of Device

Road lighting is an integral part of traffic engineering practice. The general concept of road lighting design is that the road environment and objects in it need to be made sufficiently visible to ensure that the driving task is performed successfully.

Good road lighting provides benefits for the motorist, other road users and the community in general. These benefits to motorists arise from reduced crash risk and improved traffic operation. Secondary benefits to the community accrue through improved security of property, lower crime rates and enhancement of commercial, business and social/recreation environments as well as minimising trip hazards for pedestrians.

(From Austroads "Guide to Road Design Part 6B: Roadside environment").

Manufacturers are in the process of trying to push new technologies in the future that allow Street Lighting Systems to 'talk' to each other. This added intelligence would be used for self monitoring, fault notification (eg. Reporting LED / Lamp fault) and Local/Global control to adjust luminance etc.

Light poles that have slip bases are to be used to meet a road safety systems approach.

Lighting may be mains power and stand alone power sources. To transition to a more power efficiency LED street lighting is starting to be used in place of HPS luminaires.

Operating and Maintenance Manual

Road lighting is an integral part of traffic engineering practice. The general concept of road lighting design

Printed copies of this document are uncontrolled

This document is authorised on the register of procedures

Diagrams and Photos



References and Related Documents

Related Documents:	
Policies	Road/Street Lighting Policy – Provision and Maintenance of Street Lighting – Policy and Technical Directions (to be developed by Journey Management Division)
Standards and Specifications	Roads and Maritime Services QA Specification R151 Street Lighting Roads and Maritime Services Specification D&C R151 Street Lighting Roads and Maritime Services QA Specification 3851 Steel Tapered Lighting Columns Roads and Maritime Services QA Specification IC-QA-TS020 - ITS Communications System Guide to Road Design: Part 6B Roadside Environment; Austroads Publication. No.AGRD06B-09 (Section 4.1.3, 4.2). AS1798-1992 Lighting Poles and Bracket Arms – preferred dimensions AS/NZS1158 Lighting for Roads and Public Spaces (15 standards plus a “Set”) Specification No.TSI-SP-003 Communications Protocol for Roadside Devices ILC-MP-M-001 MinorProject Information and Planning Manual - Professional Services Contract – Description of Services – PMO - Draft TES-SPEC-071 Requirements for LED based Street Lighting
Procedure	ILC-ITS-TP0-002 ITS Project Life Cycle (Site specific and dependent on the design).
Technical Directions	TDT 2011/07 Attachment of Equipment to Traffic Facilities Assets TDT2012/10 Energy Management for New Traffic Assets
Guidelines	Guide to Road Design: Part 6B Roadside Environment; Austroads Publication. No.AGRD06B-09 ITS-11ITS7 APC Selection Guidelines – Alternative Power & Communications for ITS Installations.

Maintenance Specifications	- Roads and Maritime Services QA Specification R307 Maintenance of Street Lighting - Roads and Maritime Services QA Specification R309 Maintenance of Emergency Telephones
Factory Acceptance Testing (FAT)	For Supplier-specific FAT documents, refer to those provided by Supplier(s).
Site Acceptance Testing (SAT)	For Supplier-specific SAT documents, refer to those provided by Supplier(s).

Acronyms, Abbreviations and Definitions

Term	Definition
UPS	Uninterrupted Power Supply
Lux	SI unit of illuminance
Lumen	Measure of the amount of emitted light from a source
Luminaire	A light fitting
Lighting Pole	A vertical structure designed to securely hold the luminaire

About this release

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Issue	Date	Revision description
Issue 1	July 2013	Initial Release
Issue 2	September 2013	Updated author and technical authority
Issue 3	January 2014	Expanded coverage of the device description
Issue 4	March 2015	Updated description of Device and References and Related Documents.

Note: The issue date is normally considered to be the date on which a document is authorised or signed off. Under the ILC Management System, authorisation is indicated by the signature of the authorising manager on the document register. For simplicity then, the date of writing or revising a document is used as the issue date.

This document is published under the Infrastructure Life Cycle Management System and is subject to review and continual improvement. The current version of this procedure is that published on the Roads and Maritime Services intranet.

Note: The Infrastructure Lifecycle Management System complies with the requirements of the ISO9001 standard. This standard is revised every four years (2008, 2012, 2016). While system procedures within the ILC Management System are revised as necessary, to meet any changed requirements of the standard, references within the procedures refer only to ISO9001.

It should be confidently assumed by users that the term ISO9001 within a procedure refers to the most current version of the standard.

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