TECHNICAL specification

DALI specification

Emergency and exit lighting

### General

Provide ABB Stanilite® DALI compliant exit and emergency lighting throughout the scope.

### Scope

Provide emergency and exit lighting systems comprising:

* Self-contained single point battery reserve emergency lightings with DALI compliant capability;
* Self-contained single battery reserve exit lights with DALI compliant capability;
* Luminaire wiring and controls;
* All exit and emergency lights to be classified by an approved authority in accordance with AS/NZS 2293.1 with the classification being clearly identified on the luminaire
* Installation of the system in accordance with the manufacturers installation and commissioning guidelines

### Standards

Reference documents

Comply with the following standards:

* AS/NZS 2293 - emergency evacuation lighting in buildings
* AS/ACIF S009 - installation requirements for customer cabling (wiring rules)
* AS/NZS 3000 - wiring rules
* IEC 62386 - international DALI standard

Exit and emergency lighting complying with all relevant clauses in the luminaires section of this specification.

### Authorities

Requirement

Comply with requirements of:

* Building Code of Australia
* National Construction Code of Australia
* Applicable Local Government Authority

### DALI emergency and exit lighting

Provide ABB Stanilite DALI emergency and exit lighting that is certified DALI compliant under IEC 62386 as a minimum.

Test certificates from a registered testing laboratory recognised by the Digital Illumination Interface Alliance must be provided to confirm DALI compliance.

Each exit and emergency luminaire must be fitted with the DALI logo to confirm DALI compliance.

DALI compatible emergency and exit lighting will not be accepted.

Provide luminaires supplied and installed to comply with AS/NZS 2293 and AS/NZS 3000 with the following:

* Emergency lighting C0 and C90 classification
* EMC test results
* Heat rise test results

Each DALI luminaire shall contain a microcontroller responsible for data communications and for the control and monitoring of the emergency functions of the luminaire.

The microcontroller in each emergency or exit luminaire shall monitor the following:

* Emergency test button
* Switched active mains supply
* Emergency lamp current
* Emergency lamp light output
* Mains lamp light output
* Emergency inverter or power supply
* Battery charging

The microcontroller in each emergency luminaire shall be able to disconnect the emergency unit from the mains supply to test the emergency operation of the unit in the event of power failure.

**Batteries**

Removable ABB Stanilite Lithium iron LiFePO4 single cell batteries are to be used in all luminaries.

Batteries shall be suitably located away from heat sources such as transformers, ballasts and lamps in order to achieve optimum battery life. Batteries shall be securely fastened using purpose made clamps, incorporated into the battery pack or luminaire body. Battery connection shall be by quick connect tabs and receptacle connectors.

Initial emergency period: 2 hours

In service emergency period: 1.5 hours