



Australian Government

**Assessment Requirements for UEEEL0070
Select effective and efficient light sources
and luminaries for given locations and
designs**

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Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least one occasion and include:

- obtaining illumination parameters from a design brief, job specification or by consultation with the client
- understanding compliance and recommended illumination parameters for particular situations and tasks
- understanding manufacturers' technical information
- selecting appropriate light sources and luminaries
- documenting selected light sources and luminaries, including justification for the selections made
- dealing with unplanned events
- applying industry standards
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including using risk control measures
- following workplace procedures
- applying manufacturer specifications.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- light sources, lamps and luminaries, including:
 - types of light sources and their historic development, including the practical requirements, advantages and disadvantages encompassing:
 - incandescent
 - electrical discharge in gases
 - tubular fluorescent
 - compact fluorescent types

- phosphor types
- low pressure sodium
- high pressure sodium
- metal halide
- mercury vapour
- tungsten halogen cycle lamps
- neon and advertising tube types
- light-emitting diode (LED) technologies
- each practical lamp type is designated in terms encompassing:
 - luminous efficacy
 - spectral output
 - colour rendering
 - longevity of operation
 - supply requirements and control equipment
 - cost
 - sustainability and recycling
- types of luminaries encompassing:
 - general design and types
 - provision of data on luminaries
 - methods of light control
 - properties of optical systems: refractors, reflectors and diffusers
 - luminance control techniques
 - luminaires and auxiliaries
 - Australian Standards for indoor and outdoor luminaries
 - calculation of utilisation factors
 - provision of photometric data
 - luminance of various fittings
- natural lighting and building design
- techniques used to minimise energy expenditure
- specific application lamps:
 - specific task lamps
 - germicidal lamps
 - indoor agricultural or hydroponic lamps
- relevant industry standards
- relevant job safety assessments or risk mitigation processes
- relevant manufacturer specifications and operating instructions
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace policies and procedures.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in suitable workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated suitable workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or simulations
- relevant and appropriate materials, tools, facilities, equipment and personal protective equipment (PPE) currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, relevant industry standards, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>