



Australian Government

Department of Education, Employment and Workplace Relations

CUFLGT101A Apply a general knowledge of lighting to work activities

Revision Number: 1

CUFLGT101A Apply a general knowledge of lighting to work activities

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to complete basic lighting tasks in a range of production contexts.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>People assisting with lighting operations in the screen, media and entertainment industries apply the skills and knowledge outlined in this unit. They are working under the direct supervision of an experienced lighting technician.</p> <p>The role includes the need for an understanding of the role of lighting technicians, lighting system layouts and the functions of a range of lighting equipment. Equipment operation is at a routine level.</p> <p>Higher level skills associated with lighting operations are covered in units such as:</p> <ul style="list-style-type: none"> • CUFLGT301A Prepare, install and test lighting equipment • CUFLGT302A Record and operate standard lighting cues.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
Make preparations for lighting set-up	<ol style="list-style-type: none"> 1. Confirm work requirements with <i>relevant personnel</i> with reference to designated lighting plans 2. Correctly identify appropriate rigging and positioning points for <i>lights and lighting equipment</i> 3. Correctly identify cables and connectors used with different lighting components 4. Identify and sort lighting equipment and accessories in preparation for set-up, ensuring appropriate handling and taking account of equipment differences 5. Follow enterprise procedures and comply with OHS requirements at all times
Complete tasks using lighting equipment	<ol style="list-style-type: none"> 6. Correctly use a <i>lighting desk</i> to bring up channels for focusing and adjustment 7. Correctly and safely power up <i>dimmers</i> and set up <i>patch system</i> 8. Attach <i>light beam control accessories</i> to ensure <i>use of lights</i> is according to instructions and procedures 9. Correctly handle cables, including rolling/unrolling, storage and safe manual handling 10. Identify problems with equipment promptly, take action within the scope of individual responsibility or report to relevant personnel 11. Check and replace <i>spares and consumables</i> and ensure production equipment is ready and available to productions at specified locations 12. Communicate appropriately with relevant personnel, clients or the public during the completion of tasks

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- effective communication, literacy and teamwork skills sufficient to:
 - work effectively as a member of a production team
 - interpret lighting plans
 - understand use of scale, lighting symbols and notation conventions
- technical skills sufficient to:
 - operate a lighting desk at a basic level
 - undertake basic maintenance of lighting components, e.g. replacing bulbs, checking condition of cables
- numeracy skills sufficient to:
 - count and sort equipment and use numerical features of lighting desks
 - understand and calculate power loadings (amperage)

Required knowledge

- the general scope and potential of lighting operations within different production contexts, e.g. theatre, music, corporate, film and television
- basic understanding of electrical theory, e.g. watts, amps, kilowatts
- roles and responsibilities of lighting technicians in different contexts, including career paths
- the relationship between lighting operations and other technical and performance areas, including audio, vision systems and performance
- lighting system options in a range of venue types
- colour recognition
- specialised terminology that applies to lighting operations
- general features of lanterns and accessories, dimmers and control systems
- overview of different types of automated lights and the special requirements of this type of technology, including:
 - rigging orientation
 - powering
 - requirement for data supply and fixture addressing
- overview of appropriate use of standard pump-propelled glycol-based atmospheric (smoke) effects
- requirements for storage of lighting equipment
- OHS legislation and enterprise standards in relation to lighting operations, e.g. electrical restrictions

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • completion of lighting-related tasks according to health and safety procedures • recognition of lighting equipment, including key features and purpose.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • practical demonstration of skills through the completion of a range of preparatory and set-up tasks with industry-standard lighting equipment • project or work activities that allow knowledge to be applied to specific production contexts and situations • access to appropriate learning and assessment support when required • use of culturally appropriate processes and techniques appropriate to the language and literacy capacity of learners and the work being performed.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • direct questioning combined with review of portfolios of evidence and third-party workplace reports of on-the-job performance • direct observation of the candidate completing lighting-related tasks • inspection of equipment set up by the candidate to determine whether set-up meets production requirements • verbal or written questioning to assess knowledge of equipment types.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> • CUSOHS301A Follow occupational Health and safety procedures

EVIDENCE GUIDE

- CUETGE15B Handle physical elements safely during bump in/bump out.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

	<ul style="list-style-type: none"> •
<i>Relevant personnel</i> may include:	<ul style="list-style-type: none"> • camera crew • clients • customers • lighting designer • lighting technicians • performers/actors • special effects operators • supervisor.
<i>Lights and lighting equipment</i> may include:	<ul style="list-style-type: none"> • architectural fixtures, e.g. wall lights • cyclorama lights • ellipsoidal profile • floods • fresnels • outside broadcast equipment • PAR (parabolic aluminised reflector) lamps • PC (pebbled convex) lamps • profile • snoots • studio and theatre-based equipment.
<i>Lighting desk</i> may include:	<ul style="list-style-type: none"> • controlled lighting effects • lighting desk peripherals, e.g.: <ul style="list-style-type: none"> • monitors • printers • external memory storage • riggers' controls • desk lamp • control cables • effects unit • back-up equipment • manual preset operation

RANGE STATEMENT	
	<ul style="list-style-type: none"> • manual/memory desks • manually operated desks • single scene sub-master operation • sub-master cue stacker and playback • theatrical cue set-up and playback.
<i>Dimmers</i> may include:	<ul style="list-style-type: none"> • analogue dimmers • multiplexed analogue dimmers • multiplexed digital dimmers, e.g. DMX512 • MUX and DMUX units, e.g. analogue conversion • Single-unit (follow spot) dimmers, e.g. Model 1 or Monopak • small self-contained dimmable controllers, e.g. Fourpak, Quadpak.
<i>Patch system</i> may include:	<ul style="list-style-type: none"> • automated lighting, i.e. direct power and data lines required (no dimmer) • distributed dimming, e.g. dimmers located where required • distributed patching, e.g. patch lines from a single dimmer to lights • dual systems, i.e. combination of both layouts as above.
<i>Light beam control accessories</i> may include:	<ul style="list-style-type: none"> • animation discs • barn doors • black wrap • colour frames • cookies • cut-outs • doughnuts and top hats • flags • flood mechanisms • fresnel/PC barn doors • gel frames • gels • gobos/gobo holders/rotators • iris • profile shutters.
<i>Use of lights</i> may include:	<ul style="list-style-type: none"> • avoiding incorrect orientation of a lamp (which can reduce filament and lantern life) • identifying the correct replacement lamp and wattage of lanterns

RANGE STATEMENT	
	<ul style="list-style-type: none"> • identifying the different types of lamp bases • knowing how heat is dissipated by a lantern • using correct bubble handling techniques.
<i>Spares and consumables</i> may include:	<ul style="list-style-type: none"> • batteries • bulbs • cables • cables • fuses • gaffer tape • gels.

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Media and entertainment production - lighting
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Co-requisite units

Co-requisite units	