



Australian Government

Department of Education, Employment and Workplace Relations

CUFLGT302A Record and operate standard lighting cues

Revision Number: 1

CUFLGT302A Record and operate standard lighting cues

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to operate a lighting console by plotting and modifying standard lighting cues. No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.
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Application of the Unit

Application of the unit	Lighting technicians or lighting assistants in the film, television or live performance industries apply the skills and knowledge described in this unit. In this largely operational role, lighting assistants are required to plot, record and modify lighting cues based on a lighting plan supplied to them by a supervising senior lighting technician or lighting designer. Operators must be familiar with the functions and set-up of lighting consoles and associated peripheral equipment. Skills associated with operating more complex cues and working with advanced equipment are covered in: • CUFLGT402A Set up, record and operate lighting cues and effects.
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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
Record, modify and replay lighting cues	1. Identify the functions of controls on consoles, including function of the unit displaying data and controls to produce text 2. Undertake channel selection and intensity setting, then identify on display unit and make appropriate modifications 3. Record cue numbers and fade/wait times according to lighting plan, identify these on display unit and make appropriate modifications 4. Identify recorded cues on display unit after playing them in correct sequence and time 5. Create, modify and replay group and sub-groups in correct sequence and time using relevant controls correctly and then identify on display unit
Test facilities in preparation for plotting lighting cues	6. Ensure that working area is clear, tidy, properly illuminated, and relevant documentation is easily accessible 7. Check communication equipment and ensure that it is in working order 8. Power up dimmers, control desk and control desk peripherals using safe working practices 9. Use appropriate test equipment to ensure lights and accessories and general operating environment meets manufacturer operational and safety specifications 10. Test lighting instruments, accessories and other lighting elements to ensure all items are in correct working order 11. Test venue lighting to ensure it is fully operational and in a safe condition 12. Identify problems with equipment promptly and take appropriate action, or refer to relevant personnel as required
Plot and operate lighting cues	13. Check instructions and lighting plan to verify practicality before plotting and check again once plotted 14. Test line of sight needed for visual cues for feasibility during performance 15. Action cues without delay according to directions and production needs 16. Complete cue modifications according to instructions and accurately update appropriate documentation

ELEMENT	PERFORMANCE CRITERIA
	17. Establish suitable back-up lighting states in the event of the failure of those recorded 18. Store recorded lighting cues and other data electronically on device external to main lighting console 19. Identify and rectify problems safely and according to venue procedures, or refer to relevant personnel
Conduct basic troubleshooting	20. Identify the nature of faults and locate promptly 21. Assess the need for remedial action taking into consideration safety issues and the need for uninterrupted performance 22. Follow manufacturer diagnostic and remedial procedures according to enterprise policy 23. Report fault to relevant personnel if fault cannot be immediately rectified, providing relevant information 24. Liaise with relevant personnel to identify back-up alternatives if fault cannot be rectified before next production deadline
Carry out post-performance procedures	25. Correctly power down equipment or set to standby between performances as required 26. Store and/or cover controls according to enterprise procedures 27. Make accurate changes to documentation and file according to enterprise procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- communication, literacy and teamwork skills sufficient to:
 - work effectively with other technicians and designers
 - interpret lighting plan requirements
 - interpret equipment and production documentation, including back-up systems used in conjunction with lighting control
- problem solving skills sufficient to identify operational problems with lighting consoles
- technical skills sufficient to:
 - operate computer-based lighting consoles
 - undertake routine maintenance of lighting consoles and peripherals
- self-management skills sufficient to work within production deadlines
- numeracy skills sufficient to complete simple mathematical calculations and recall numbers for channel selection

Required knowledge

- general lighting terms, including:
 - how terms may vary between different systems
 - how different terms can refer to the same functions on different systems
- industry terminology and protocols in relation to the operation of lighting in the relevant industry environment
- lighting control concepts used in a range of lighting systems
- features and operations (optical and mechanical) of the main types of lanterns, e.g.:
 - profile
 - fresnel
 - PC
 - flood
 - PAR (parabolic aluminised reflector) lamps
 - lantern accessories
- understanding of the basic elements of lighting design
- colour recognition in display equipment
- DMX distribution techniques, including allocation of channels
- basic understanding of electricity and safe electrical work practices
- OHS legislation and regulations as they apply to operations associated with lighting activities

Evidence Guide

EVIDENCE GUIDE

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.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- ability to record and reproduce accurately lighting cues to instruction in a given timeframe
- knowledge of lighting terminology
- correct patching of required cabling and peripherals
- collaborative approach to work.

Context of and specific resources for assessment

Assessment must ensure:

- practical demonstration of skills through the use of a lighting console on multiple occasions for multiple productions
- use of industry-standard equipment
- 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

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- direct questioning combined with review of portfolios of evidence and third-party workplace reports of on-the-job performance
- direct observation of the candidate operating a lighting console during productions
- direct observation of lighting effects produced by the candidate during a production
- verbal or written questioning to assess knowledge of console features and functions.

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:

- CUFLGT101A Apply a general knowledge of lighting to work activities.

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.

Lighting plan may include:

- colour sheet
- computer generated
- cue synopsis/sheet
- equipment list
- focus details
- magic sheet
- manually written
- patch sheet.

Documentation may include:

- accident reports
- call sheet
- colour coding schedules
- equipment manuals/lists/instructions
- fault reports
- floor sheets
- lantern schedules
- power requirements
- production schedule
- running sheet
- script
- venue procedures/layout plans.

Communication equipment may include:

- headphones
- mobile phones
- standard intercoms
- two-way radios.

Dimmers may include:

- 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, Monopak
- small self-contained dimmable controllers, e.g. Fourpak, Quadpak.

RANGE STATEMENT	
Control desks may include:	• controlled lighting effects • manual/memory desks • manually operated desks.
Control desk peripherals may include:	• back-up units • control cables • desk lamp • effects unit • external memory storage • monitors • printers • riggers' controls.
Test equipment may include:	• analogue and digital multimeters • continuity tester • DMX, cable testers • test meters.
Lights and accessories may include:	• animation discs • architectural fixtures, e.g. wall lights • colour frames • cookies • cut-outs • flags • flood mechanisms • fresnel/PC barn doors • gobos/gobo holders/rotators • outside broadcast units • profile shutters • snoots • studio and theatre-based units.
Lighting instruments may include:	• digital moving (intelligent) lights • special effects units • theatre-based units.
Lighting elements may include:	• electrical/electronic props • floor electrics • pracs, e.g. functional lamp as prop • special effects, e.g.: • strobe lights • mirror balls and motors • smoke machines • fog machines

RANGE STATEMENT	
	• ultraviolet lights • chasers • haze machines • effects projectors • optic fibre lights.
Venue lighting may include:	• aisle lights • backstage lights • blue light • cleaner lights • display/advertising lights • exit lights • general lights • house lights • orchestra lights • panic lights • task lights • work lights.
Relevant personnel may include:	• choreographer • director • director of photography • gaffer • lighting designer • producer • production manager • senior lighting technician • stage manager • supervisor • technical director • other technical/specialist staff.
Productions may include:	• animations • documentaries • feature films • interactive media productions • live concert performances, e.g. rock concerts, open-air concerts/events • music videos • stage productions, e.g. plays, musicals • television productions, e.g. drama, sport, comedy.

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		