



Australian Government

Department of Education, Employment and Workplace Relations

CUELGT09A Apply a general knowledge of lighting to work activities

Release: 1

Modification History

Not Available

INTRODUCTION

UNIT This unit provides the foundation knowledge required to complete a range of general lighting-related tasks in a live venue environment. It includes the need for an understanding of the role of the lighting technician, overall lighting system layout and basic equipment recognition. Tasks would generally be completed under supervision.

DESCRIPTOR

ELEMENT	PERFORMANCE CRITERIA
1 Make preparations for lighting set up	1.1 Extract key information from lighting plans and confirm requirements with supervisor 1.2 Correctly identify appropriate rigging and positioning points for lighting equipment 1.3 Correctly identify cables used to connect different lighting components 1.4 Correctly identify and sort equipment and accessories in preparation for set up, ensuring appropriate handling and taking account of equipment differences
2 Complete tasks using lighting equipment	2.1 Correctly use the lighting desk to bring up channels for focussing 2.2 Correctly and safely power up dimmers and set up patch location 2.3 Match light beam control accessories to lights and use in accordance with instructions 2.4 Correctly handle cables, including rolling/unrolling, storage and safe manual handling 2.5 Identify any problems with equipment promptly, take action within the scope of individual responsibility or report to supervisor 2.6 Communicate appropriately with other technicians, performers or customers during the completion of tasks

RANGE STATEMENT

The following explanations identify how this unit may be applied in different workplaces, sectors and circumstances.

Use of lighting desk must include:

- manual preset operation
- theatrical cue set up and playback
- single scene submaster operation (a single set of channel levels being stored in a fader for later use)
- submaster cue stacking and playback (a series of cues, namely sets of channel levels and fade times, stored in sequence and recalled later)

Use of dimmer and patch system layouts may include:

- distributed dimming – dimmers located where required
- distributed patch – patch lines from a single dimmer location to destination lights
- dual systems – combination of the above two systems
- automated lighting requirements – direct power and data lines required (no dimmer)

Conventional lights to be used must include:

- floods and PARS and cyc lights
- fresnel and pebbled convex (PC) lanterns
- profile, ellipsoidal profile

Light beam control accessories may include:

- gel types and gel frames
- barn doors
- gobos and gobo holders
- iris
- doughnuts and top hats
- black wrap
- shutters
- spun

Use of conventional lights must include:

- finding out the correct replacement lamp and wattage of the lantern
- awareness of the different types of lamp bases
- correct bubble handling techniques
- awareness of how heat is dissipated by a lantern
- when incorrect orientation of a lamp may reduce filament and lantern life

EVIDENCE GUIDE

Underpinning skills and knowledge	Assessment must include evidence of the following knowledge and skills: • the general scope and potential of lighting operations within different live production contexts, eg theatre, music, corporate • the relationship between lighting operations and other technical and performance areas, including audio, vision systems and performance • typical roles and responsibilities of the lighting technicians in different context, including career paths • lighting system options in a range of venue types • 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 • organisational and legislative occupational health and safety legislation in particular relation to lighting operations, eg electrical restrictions • knowledge of colour recognition • requirements for storage of lighting equipment • literacy skills sufficient to interpret lighting plans, understand use of scale, lighting symbols and notation conventions • numeracy skills sufficient to count and sort equipment and use numerical features of lighting desks
Linkages to other units	This unit underpins and has linkages to general technical units and all other lighting units and combined assessment and/or training with those units may be appropriate, eg: • CUFSAF01B • Follow health, safety and security procedures • CUETGE11A • Handle physical elements safely during bump in/bump out
Critical aspects of evidence	The following evidence is critical to the judgement of competence in this unit: • recognition of lighting equipment,, including key features and purpose • completion of lighting-related tasks in accordance with health and safety procedures

Method and context of assessment

The assessment context must provide for:

- practical demonstration of skills through the completion of a range of preparatory and set up tasks with industry-current lighting equipment
- project or work activities that allow knowledge to be applied to specific production contexts and situations

Assessment may incorporate a range of methods to assess performance and the application of essential underpinning knowledge, and might include:

- direct observation of the candidate completing lighting-related tasks
- evaluation of equipment which has been set up by the candidate
- oral or written questioning to assess knowledge of equipment types
- review of portfolios of evidence or third party workplace reports of on-the-job performance by the candidate

Assessment methods should closely reflect workplace demands and the needs of particular groups (eg people with disabilities, and people who may have literacy or numeracy difficulties such as speakers of languages other than English, remote communities and those with interrupted schooling).

Resource requirements

Assessment of this unit requires access to:

- a range of lighting equipment as identified in the Range Statement
- an environment in which lighting can be set up and operated
- lighting plan for interpretation

KEY COMPETENCY LEVELS

Key competencies are built into all workplace competencies. The table below describes those applicable to this unit. Trainers and assessors should ensure that they are addressed in training and assessment.

Level 1 = Perform

Level 2 = Administer and Manage

Level 3 = Design and Evaluate

Key competencies	Level	Examples
Collecting, organising and analysing information	1	Reading lighting plan to determine equipment requirements
Communicating ideas and information	1	Discussing work requirements with supervisor
Planning and organising activities	1	Positioning and placing equipment ready for installation
Working with others and in teams	1	Liaising with other technicians during set up
Using mathematical ideas and techniques	1	Calculating the number of lamps required
Solving problems	1	Adjusting position of equipment
Using technology	1	Using hand tools