

Title	Install, operate and remove lighting systems for performances or events		
Level	4	Credits	20

Purpose	People credited with this unit standard are able to: interpret and adapt a lighting plan and documentation; implement a lighting plan; apply knowledge of electrical theory, lighting equipment, checks and accessories for stage lighting; program a lighting console; operate a lighting console for a pre-programmed performance or event; operate a lighting console in busking mode; and remove and pack out lighting equipment for a performance or event.
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Classification	Performing Arts General > Entertainment and Event Technology
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Available grade	Achieved
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Guidance Information

- 1 Recommended skills and knowledge: Unit 17600, *Explain safe work practices for working at heights*.
- 2 All learning and assessment leading to this unit standard must be carried out in accordance with the following as relevant:
 - legislation including Health and Safety at Work Act 2015 and subsequent amendments;
 - current industry best practice and industry guidelines (where available) including *Safe Rigging Practices for the Entertainment Industry in New Zealand*, June 2015, and *A Guide for Safe Working Practices in the New Zealand Theatre & Entertainment Industry*, April 2011, or replacements that supersede these guidelines, available from the WorkSafe website, www.worksafe.govt.nz.
- 3 The Entertainment and Event Technology programme guidance document should be consulted when developing assessments leading to this unit standard. It can be found at www.skillsactive.org.nz.
- 4 Technical skills must be demonstrated across a range of performances and events, including a minimum of four complex events.

5 Definitions

Complex events are defined as having technical complexity and must meet at least three of the following criteria:

- audience or guest capacity > 500
- hours of technical production > 150 hours
- production budget (covering technical and staffing requirements for rigging, lighting, video, live sound, stage mechanics and scenic construction) > \$100,000
- quantity of Performers/Presenters > 20
- length of time in the venue (or venues if a touring production) > 7 days.

LED means light emitting diodes.

PAT testing refers to portable appliance testing.

Outcomes and performance criteria

Outcome 1

Interpret and adapt a lighting plan and documentation for a performance or event.

Performance criteria

- 1.1 Interpret the lighting plan to determine the instrument schedule, colour cut, cable schedule, the patching requirements, and other resources required for the lighting plan.
- 1.2 Interpret the lighting plan to determine lighting positions and any additional rigging requirements.
- 1.3 Adapt a plan where differences are presented by the venue that the plan does not cover.

Outcome 2

Implement a lighting plan for a performance or event.

Performance criteria

- 2.1 Select, prepare, rig, patch, and label equipment according to the requirements of the design and industry good practice.
- 2.2 Preparation for focusing is carried out in accordance with the lighting plan and designer's requirements.
- 2.3 Use terminology consistent with the lighting plan throughout the installation, focus plotting and during operation of the performance or event.
- 2.4 Safely use personal protective equipment (PPE) related to height safety, ladders, elevated working platforms in accordance with safety guidelines and legislation.
- 2.5 Demonstrate focusing techniques to meet production requirements.

- 2.6 Solve problems using a logical process and problem solving techniques to remedy issues arising during the performance or event.
- 2.7 Maintain the lighting plan and associated schedules to reflect changes.

Outcome 3

Apply knowledge of electrical theory, lighting equipment, checks and accessories for stage lighting.

Performance criteria

- 3.1 Demonstrate knowledge of electrical power cabling for lighting equipment, including the size of the conductor and connectors relative to current handling capacity.
- 3.2 Calculate current in a range of stage lighting situations.
- 3.3 Demonstrate knowledge of circuit protection in a range of situations in accordance with safety guidelines and legislation.
- 3.4 Use protection devices according to the conditions and workplace procedures and guidelines.
- 3.5 Check lighting equipment safety requirements in accordance with lighting plan documentation, PAT testing and electrical safety guidelines and legislation.

Outcome 4

Program a lighting console for a performance or event.

Performance criteria

- 4.1 Explain components and purpose of a lighting console in terms of use in entertainment or events.
- 4.2 Patch fixtures to lighting console channels to meet lighting requirements.

Range three LEDs, three dimmers, three different moving lights.
- 4.3 Programme special effects from the lighting console library according to the performance requirements.
- 4.4 Determine scenes and apply cues according to the performance requirements.
- 4.5 Determine and record lighting fixtures and channels to match scene requirements.
- 4.6 Program and record colour combinations according to scene requirements.
- 4.7 Plotted lights and cue placement are determined and applied in accordance with lighting designer requirements.

4.8 Determine and apply recording protocols to operate a lighting console in accordance with lighting requirements.

Range protocols may include but are not limited to - highest takes precedence, latest takes precedence, tracking versus cue only.

4.9 Program three different profiles for simple moving lights and load into a lighting console.

Range each profile must include a minimum of four attributes.

Outcome 5

Operate a lighting console for a pre-programmed performance or event.

Performance criteria

5.1 Operate lighting console to playback the lighting states on cue and meet lighting design requirements.

5.2 Create a cue sheet with lighting cues to meet the requirements of the performance or event.

5.3 Accommodate unexpected changes when operating a lighting console.

5.4 Solve problems using a logical process and problem solving techniques to remedy issues arising during the performance or event.

Outcome 6

Operate a lighting console in busking mode for a performance or event.

Performance criteria

6.1 Programme the lighting console to enable quick replay of desired scenes.

6.2 Label the lighting console appropriately ensuring any special requirements for the production are documented.

6.3 Programme effects into the lighting console meeting requirements for the smooth and efficient operation of the lighting performance or event.

6.4 Operate lighting console with lighting cues meeting requirements for the good rhythm of the show, accurate recognition of cues and appropriate choice of effects and colours.

Outcome 7

Remove and pack out lighting equipment for a performance or event.

Performance criteria

- 7.1 Dismantle lighting equipment in accordance with safety guidelines.
- 7.2 Pack-out of lighting equipment following a logical process and in reverse to pack-in procedures.
- 7.3 Labelling is removed and any faulty equipment is relabelled in accordance with safety guidelines.
- 7.4 Load the vehicle safely and efficiently.
- 7.5 Safe lifting and manual handling of lighting equipment is demonstrated in accordance with safety guidelines.
- 7.6 Reinstall lighting equipment to meet production or transportation requirements.

Planned review date	31 December 2022
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	28 September 2017	N/A

Consent and Moderation Requirements (CMR) reference	0099
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact the Skills Active Aotearoa Limited info@skillsactive.org.nz if you wish to suggest changes to the content of this unit standard.