



Australian Government

Department of Education, Employment and Workplace Relations

LMFID4008A Assess interior light and recommend light fittings

Revision Number: 1

LMFID4008A Assess interior light and recommend light fittings

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit specifies the outcomes required to assess natural and artificial light sources of an interior space and make recommendations for light fittings as part of a decorative solution.
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Application of the Unit

Application of the unit	<p>This unit supports the attainment of skills and knowledge required for competent research and recommendation of light fittings and sustainable lighting practices which are part of an integrated decorative solution.</p> <p>This unit requires employability skills in initiative and enterprise and problem solving in order to direct the research and selection of suitable light fittings. Communication skills are used to access and interpret information using information technologies and complete required documentation. Self management and learning skills are applied in the review of information and arrangements to ensure project needs are met</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

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
1. Interpret lighting requirements from project brief	<p>1.1. Applicable OHS, legislative and organisational requirements relevant to researching and recommending light fittings are verified and complied with</p> <p>1.2. Project brief is reviewed and clarified with client to determine lighting requirements</p> <p>1.3. Parameters for the project are assessed and confirmed</p> <p>1.4. Resources are selected appropriate to work requirements and checked for operational effectiveness</p> <p>1.5. Communication with others is established and maintained</p> <p>1.6. Available budget for lighting is verified</p>
2. Assess natural light sources	<p>2.1. Site analysis is conducted to assess the natural light and ultraviolet penetration</p> <p>2.2. Project brief and building plans are acquired to assess aspect and orientation</p> <p>2.3. Window treatments and placement are examined to analyse their efficiency in controlling light</p> <p>2.4. Selection of colours for walls, ceilings and furnishings, and wall hangings are reviewed in their effect on raising or lowering the affect of light into the space</p> <p>2.5. Characteristics of natural light are researched and reported in accordance with the project brief goals</p> <p>2.6. Methods of light control and light control devices are assessed for their affect on natural light</p>
3. Assess artificial light sources	<p>3.1. Artificial light sources and their properties are assessed for adequacy in achieving desired lighting effects</p> <p>3.2. Environmental impact of artificial lighting devices are researched and assessed and current technologies identified</p> <p>3.3. Location of artificial lights are identified and required changes to location to meet desired effects are determined</p> <p>3.4. Affect of artificial lighting on the colour spectrum is analysed</p> <p>3.5. Technical terms associated with artificial lighting are</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>used to communicate lighting requirements</p> <p>3.6. <i>Special effects</i> that can be achieved using artificial lighting are identified</p> <p>3.7. Industry standards and requirements for artificial lighting are researched and identified</p>
4. Select light fittings	<p>4.1. Research is conducted to determine cost and energy efficient light fittings to meet the requirements of an integrated decoration solution</p> <p>4.2. Required locations of light fittings are identified</p> <p>4.3. Light fittings are selected and specifications documented</p> <p>4.4. <i>Electricity board is assessed</i> to determine potential complications with selected light fittings</p> <p>4.5. Electrician is consulted to confirm costings and installation requirements to implement lighting schedule</p>
5. Draw and present lighting layouts for an interior space	<p>5.1. Lighting layout is documented using industry symbols and conventions</p> <p>5.2. Selection of light fittings are related to layout including furniture, ceiling forms and natural light</p> <p>5.3. Formats for schedules of light fittings are researched</p> <p>5.4. Lighting schedule is completed</p> <p>5.5. Costings are determined and documented</p> <p>5.6. Lighting layout is presented to client</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- collecting, organising and understanding information related to work briefs, basic plans and safety procedures
- communicating ideas and information
- accurately recording and maintaining information
- using computer operations for internet access and searches
- analysing performance characteristics
- comparing findings
- communicating with suppliers
- maintaining accurate records
- clarifying and checking task related information
- carrying out work according to OHS practices
- recognising and responding to circumstances outside instructions or personal competence
- efficiently and safely contributing to innovative interior decoration and design processes
- using mathematical ideas and techniques to correctly complete measurements, calculate area and volume, and estimate other material requirements
- maintaining current knowledge of interior decoration and design techniques
- using the workplace technology related to the use of tools including calculators, measuring and recording devices

Required knowledge

- State or Territory OHS legislation, regulations, standards and codes of practice relevant to the full range of processes for assessing interior light and recommending light fittings
- organisational and site standards, requirements, policies and procedures
- Australian Lighting Standards and drawing conventions
- research sources for lighting
- ergonomics, anthropometrics, proxemics and aesthetic values
- natural light characteristics and controls
- design themes and design development
- sketching and drawing techniques
- procedures for the recording, reporting and maintenance of workplace records and information
- appropriate mathematical procedures for estimation and measurement
- environmental protection requirements
- established communication channels and protocols

REQUIRED SKILLS AND KNOWLEDGE

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| <ul style="list-style-type: none">• problem identification and resolution techniques |
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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	<ul style="list-style-type: none"> • Assess light for its environmental impact and ability to meet decorative requirements • Provide the client with cost effective and efficient lighting solutions • Apply design elements and principles in recommending light fittings • Provide documented lighting layout and schedule • Comply with legislation, regulations, standards, codes of practice and established safe practices and procedures for assessing light and recommending fittings • Communicate effectively and work safely with others in the work area
Context of and specific resources for assessment	<ul style="list-style-type: none"> • The application of competency is to be assessed in the workplace or realistically simulated workplace • Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints • Assessment of essential underpinning knowledge, other than confirmatory questions, will usually be conducted in an off-site context • Assessment is to comply with relevant regulatory or Australian Standards requirements • The following resources should be made available: <ul style="list-style-type: none"> • workplace location or simulated workplace • materials and equipment relevant to assessing interior light and recommending light fittings • specifications and work instructions
Method of assessment	<ul style="list-style-type: none"> • Assessment must satisfy the endorsed assessment guidelines of the Furnishing Industry Training Package • Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of underpinning knowledge • Assessment methods must be by direct observation of

EVIDENCE GUIDE	
	<p>tasks and include questioning on underpinning knowledge to ensure its correct interpretation and application</p> <ul style="list-style-type: none">• Assessment may be applied under project related conditions (real or simulated) and require evidence of process• Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances• Assessment may be in conjunction with assessment of other units of competency
Guidance information for assessment	

Range Statement

RANGE STATEMENT	
<p>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.</p>	
OHS requirements	<ul style="list-style-type: none"> are to be in accordance with Commonwealth, State or Territory legislation and regulations, organisational safety policies and procedures. Requirements may include but not be limited to the use of personal protective equipment and clothing, fire fighting equipment, first aid equipment, hazard and risk control and elimination of hazardous materials and substances, manual handling including lifting and carrying
Legislative requirements	<ul style="list-style-type: none"> are to be in accordance with applicable legislation from all levels of government that affect organisational operation. Requirements may include but not be limited to award and enterprise agreements, industrial relations, Australian Standards, confidentiality and privacy, OHS, the environment, equal opportunity, anti-discrimination, relevant industry codes of practice, duty of care and heritage
Organisational requirements	<ul style="list-style-type: none"> may include but not be limited to legal, organisational and site guidelines, policies and procedures relating to own role and responsibility, quality assurance, procedural manuals, quality and continuous improvement processes and standards, OHS, emergency and evacuation, ethical standards, recording and reporting, access and equity principles and practices, equipment use, maintenance and storage, environmental management (waste disposal, recycling and re-use guidelines)
Light fittings	<ul style="list-style-type: none"> may include but not be limited to lamps, ceiling lights, wall lights, spot lights and flood lights
Project brief	<ul style="list-style-type: none"> may include but not be limited to client needs and objectives, client aims and objectives and

RANGE STATEMENT	
	criteria for evaluation, milestones, organisational or personal profiles and aims, image requirements and function, target market, budget, timeline, consultation requirements and colour requirements
Client	<ul style="list-style-type: none"> may include but not be limited to suppliers, manufacturers, private clients, colleagues, retailers or the public
Parameters	<ul style="list-style-type: none"> may include but not be limited to scope of brief, approval to make changes (legislative and planning), effect or feel trying to be achieved, functionality (short and long term), budget restrictions and established timelines
Resources	<ul style="list-style-type: none"> may include but not be limited to computers, computer software, design software, computer aided drafting (CAD) software, colour boards, storyboards, swatches, Pantone Matching System (PMS), journals (directions magazines), artistic equipment and products and model making equipment
Communication	<ul style="list-style-type: none"> may include but not be limited to verbal and non-verbal language, constructive feedback, active listening, questioning to clarify and confirm understanding, use of positive, confident and cooperative language, use of language and concepts appropriate to individual social and cultural differences, control of tone of voice and body language
Site analysis	<ul style="list-style-type: none"> may include but not be limited to a visit to the building (home, office or other) to achieve a feel for the intention of the project brief and how natural light may effect it, to assess the level of radiation from the sun into the space and the angles and obstructions caused by other buildings, vegetation or man made objects. It includes recording information and taking photos
Natural light	<ul style="list-style-type: none"> may include but not be limited to light emitted directly by the sun or reflected from it
Ultraviolet	<ul style="list-style-type: none"> may include but not be limited to light that is so blue humans cannot see it. A band of the electromagnetic spectrum between the visible and the X-ray. Photons of ultraviolet light are more energetic than photons of visible light

RANGE STATEMENT	
Aspect and orientation	<ul style="list-style-type: none"> may include but not be limited to the direction in which a building or space is facing, e.g. north, east, south, west, or any variation of this
Window treatments	<ul style="list-style-type: none"> may include but not be limited to blinds, curtains, awnings, shutters, shades or window tinting
Colours	<ul style="list-style-type: none"> may include but not be limited to colour principles, psychology, fundamentals, coordination, perception, contrast, harmony, effects on space, formulas and colour wheels
Wall hangings	<ul style="list-style-type: none"> may include but not be limited to mirrors, paintings, water colours, etchings, framed memorabilia and certificates
Space	<ul style="list-style-type: none"> may include but not be limited to commercial or domestic spaces, rooms such as bedrooms, bathrooms, kitchens, laundries, living spaces, multi-purpose rooms, storage rooms, studies, offices, garages, rumpus rooms, media rooms, toilets, pantries, entertainment areas, halls and work stations
Characteristics	<ul style="list-style-type: none"> may include but not be limited to energy efficiency, glare, reflection, intensity and dynamic (not constant value)
Methods of light control	<ul style="list-style-type: none"> may include but not be limited to window treatments, sails, building extensions, patios, motorised or automated devices
Light control devices	<ul style="list-style-type: none"> may include but not be limited to motorised or automated mechanisms linked to window treatments
Artificial lighting devices	<ul style="list-style-type: none"> may include but not be limited to lamps, ceiling lights, spotlights, dimmers, wall lights, LED, energy efficient globes, incandescent, halogen, fluorescent, discharge lamps
Special effects	<ul style="list-style-type: none"> may include but not be limited to dimming, spotlight, flooding, brightness, creating space, creating focus
Electricity board is assessed	<ul style="list-style-type: none"> may include but not be limited to identification of approximate age of board, number of circuits, safety switches, signs of rewiring

Unit Sector(s)

Unit sector	Interior decoration and design.
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		