# Lighting Comfort

### Credit 11

### Design Review Submission As Built Submission

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| --- | --- | --- | --- |
| Total Points available: | 3 | Points claimed: | [#] |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Criteria | Description | Points Available | Points Claimed |
| **11.1** | **Minimum Lighting Comfort** | All lights are flicker free and accurately address the perception of colour in the space. | Minimum Requirement | [Y/N] |
| **11.2** | **General Illuminance and Glare Reduction** | Lighting levels and quality comply with best practice guidelines and glare is eliminated in the nominated area. | 1 |  |
| NA |  |
| **11.3** | **Surface Illuminance** | A combination of lighting and surfaces improve uniformity of lighting to give visual interest. | 1 |  |
| NA |  |
| **11.4** | **Localised Lighting Control** | Occupants have the ability to control the lighting in their immediate environment. | 1 |  |
| NA |  |

## Project-specific technical questions (formerly tcs and cirs)

|  |  |
| --- | --- |
| There are no project-specific Technical Questions for this credit. |  |
| There are project-specific Technical Questions for this credit and all responses received from the NZGBC are attached. |  |

## 11 general Information

Provide a description and details of any areas that have been excluded for functional reasons.

Please justify if NA is claimed.

Identify where this information can be found within the supporting documentation provided.

|  |  |
| --- | --- |
| **Supporting Documentation** (Name / title / description of document) | **Reference** (Page no. or section) |
| [####] | [####] |
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Provide a list and description of any areas where the lighting is to be installed in the future by a tenant. For these spaces compliance can be demonstrated by demonstrating that best-practice lighting guidelines have been provided to tenants.

## 11.1 Minimum lighting comfort

|  |  |
| --- | --- |
| All lights in the nominated area are flicker-free and accurately address the perception of colour. |  |

Provide a description of how the project meets this minimum lighting comfort requirement.

Identify where this information can be found within the supporting documentation provided.

|  |  |
| --- | --- |
| **Supporting Documentation** (Name / title / description of document) | **Reference** (Page no. or section) |
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## 11.2 General illuminance and glare reduction

### 11.2.1 General Illuminance

|  |  |
| --- | --- |
| Lighting levels comply with best practice guidance as defined in AS 1680 for 95% of the nominated area, and the maintained illuminance values achieve a uniformity of no less than the values given in Table 3.2 of AS 1680.1:2006, with an assumed standard maintenance factor of 0.8. |  |
| Where the lighting design and installation has not been complete by the time of this submission, the building owner has committed to provide best-practice lighting guidelines to tenants through a contractually binding document. |  |

Identify where this information can be found within the supporting documentation provided.

|  |  |
| --- | --- |
| **Supporting Documentation** (Name / title / description of document) | **Reference** (Page no. or section) |
| [####] | [####] |
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|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Summary of illuminance levels | | | | |
| **Space/Floor** | **Task/activity type** | **‘Best practice general illuminance’** | **Area weighted average illuminance** | **Compliant [Y/N]** |
|  |  |  |  |  |
|  |  |  |  |  |
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**Please note: project teams may add more rows as required or use an attachment to display this information.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Summary of uniformity values | | | | |
| **Space/Floor** | **Task/activity type** | **Required uniformity level (Table 3.2 of AS1680.1:2006)** | **Uniformity level in space** | **Compliant [Y/N]** |
|  |  |  |  |  |
|  |  |  |  |  |
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|  |  |  |  |  |
| **Please note: project teams may add more rows as required or use an attachment to display this information.** | | | | |

Provide a description of how the above values were determined ( i.e. through modelling or measurement of whole nominated area or a representative floor or section).

Identify where this information can be found within the supporting documentation provided.

|  |  |
| --- | --- |
| **Supporting Documentation** (Name / title / description of document) | **Reference** (Page no. or section) |
| [####] | [####] |
| [####] | [####] |

### 11.2.2 glare reduction

|  |  |
| --- | --- |
| Glare from lamps has been eliminated from 95% of the nominated area. |  |
| Where the lighting design and installation has not been complete by the time of this submission, the building owner has committed to provide best-practice lighting guidelines to tenants through a contractually binding document. |  |

Identify where this information can be found within the supporting documentation provided.

|  |  |
| --- | --- |
| **Supporting Documentation** (Name / title / description of document) | **Reference** (Page no. or section) |
| [####] | [####] |
| [####] | [####] |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Summary of Glare Reduction Measures | | | | | |
| Space/Floor | Lighting description | Select compliance option(s) for each space/floor | | | Compliant [Y/N] |
| **Option 11.2.2A** | **Option 11.2.2B** | **Option 11.2.2C** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Please note: project teams may add more rows as required or use an attachment to display this information.**

Provide a description of how the project meets this criterion requirement.

Identify where this information can be found within the supporting documentation provided.

|  |  |
| --- | --- |
| **Supporting Documentation** (Name / title / description of document) | **Reference** (Page no. or section) |
| [####] | [####] |
| [####] | [####] |

Where the building owner has committed to provide best-practice lighting guidelines to tenants where lighting has not been completed at the time of the submission, please provide a description of how this is to be achieved.

The guide must provide options as to how the tenant can comply with the requirements in 11.1 Minimum Lighting Comfort and 11.2 General Illuminance and Glare.

[Insert a description of the Best Practice lighting guidelines that will be provided to tenants.]

## 11.3 Surface illuminance

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| --- | --- |
| A combination of lighting and surfaces improve the uniformity of lighting to give visual interest within 95% of the project’s nominated area. |  |

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| --- | --- | --- | --- | --- |
| Surface Illuminance Summary | | | | |
| Space/Floor | Lighting description | Surface Description | Compliance Method [A/B/C] | Compliant [Y/N] |
|  |  |  |  |  |
|  |  |  |  |  |
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**Please note: project teams may add more rows as required or use an attachment to display this information.**

Provide a description of how the project meets this requirement. If the project has modelled areas of the building rather than the entire project, please state this in your description too.

Identify where this information can be found within the supporting documentation provided.

|  |  |
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| **Supporting Documentation** (Name / title / description of document) | **Reference** (Page no. or section) |
| [####] | [####] |
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## 11.4 Localised lighting control

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| --- | --- |
| Occupants in the nominated area have the ability to control the lighting in their immediate environment for 95% of the nominated area. |  |

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| localised lighting control summary | | |
| **Space / Level** | **Area (m2)** | **Localised Control Method** |
| [Space 1 / Level 1] |  |  |
| [Space 2 / Level 2] |  |  |
| [Space 3 / Level 3] |  |  |
| TOTAL |  |  |

**Please note: project teams may add more rows as required or use an attachment to display this information.**

Provide a description of how the project meets the requirement for localised lighting control, including the definition of the “ immediate environment” .

Identify where this information can be found within the supporting documentation provided.

|  |  |
| --- | --- |
| **Supporting Documentation** (Name / title / description of document) | **Reference** (Page no. or section) |
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## DISCUSSION

Outline any issues you would like to highlight and clarify for the Certified Assessor(s).

## DECLARATION

I confirm that the information provided in this document is truthful and accurate at the time of completion.

Provide author details, including name, position and email address:

[Date]

––– Report end –––