# Lighting Comfort

### Credit 10

### Design Review Submission As Built Submission

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Name | Description | Points Available | Points Claimed |
| **10.1** | **Minimum Lighting Comfort** | All lights are flicker free and accurately address the perception of colour in the space. | Minimum Requirement | [Y/N] |
| **10.2** | **General Illuminance and Glare Reduction** | Lighting levels comply with best practice guidelines and glare is eliminated in the nominated area. | 1 |  |
| NA |  |
| **10.3** | **Surface Illuminance** | A combination of lighting and surfaces improve uniformity of lighting to give visual interest in the nominated area. | 1 |  |
| NA |  |
| **10.4** | **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. |  |

## 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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## 10.1 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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## 10.2 General illuminance and glare reduction

### 10.2.1 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. |  |
| **For residential spaces only** Living rooms, kitchens, bathrooms and bedrooms of residential spaces are provided with good maintained illuminance values and all installed fittings have a rated colour variation not exceeding 3 MacAdam Ellipses. |  |

Please complete the following table detailing illuminance levels for the project:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Summary table - ILLUMINANCE levels (10.2.1) | | | | |
| **Space/Floor** | **Task/activity type** | **‘Best practice general illuminance’** | **Area weighted average illuminance** | **Compliant [Y/N]** |
| [e.g. Level 1 meeting room] | [e.g. office space] | [##] | [##] | [Y/N] |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Note: Project teams may add more rows as required or use an attachment to display this information.

Please complete the following table detailing uniformity values for the project:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Summary table - uniformity values (10.1.1) | | | | |
| **Space/Floor** | **Task/activity type** | **Required uniformity level (Table 3.2 of AS1680.1:2006)** | **Uniformity level in space** | **Compliant [Y/N]** |
| [e.g. Level 1 meeting room] | [e.g. office space] | [##] | [##] | [Y/N] |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

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 all the 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) |
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| [####] | [####] |

### 10.2.2 glare reduction

|  |  |
| --- | --- |
| Glare from lamps has been eliminated from 95% of the nominated area. |  |

Provide a description of how the project has eliminated glare.

Please complete the following table outlining the glare reduction measures taken for the project:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Summary taBLE - Glare Reduction Measures (10.2.2) | | | | | |
| **Space/Floor** | **Lighting description** | **Select compliance option(s) for each space/floor:** | | | **Compliant [Y/N]** |
| **Option 10.2.2A** | **Option 10.2.2B** | **Option 10.2.2C** |
| [e.g. Level 1 open plan office] | [e.g. T5 lamps across open floor] | [Y/N] | [Y/N] | [Y/N] | [Y/N] |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Note: Project teams may add more rows as required or use an attachment to display this information.

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) |
| [####] | [####] |
| [####] | [####] |

## 10.3 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. |  |

Provide a description of how the project has provided visual interest in the project’s lighting design. If the project has modelled areas of the building rather than the entire project, please state this in your description.

Please complete the following table outlining the approach taken to provide visual interest in the project:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Summary table - Surface Illuminance (10.3) | | | | |
| **Space/Floor** | **Lighting description** | **Surface Description** | **Compliance Method [A/B/C]** | **Compliant [Y/N]** |
| [e.g. Level 1 open plan office] | [e.g. T5 lamps across open floor] | [e.g. pelmet mount, indirect lighting] | [A/B/C] | [Y/N] |
|  |  |  |  |  |
|  |  |  |  |  |
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Note: Project teams may add more rows as required or use an attachment to display this information**.**

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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## 10.4 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. |  |

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

Please complete the following table outlining the approach taken to provide localised lighting control in the project:

|  |  |  |
| --- | --- | --- |
| summary Table - localised lighting control (10.4) | | |
| **Space / Level** | **Area (m2)** | **Localised Control Method** |
| [Space 1 / Level 1] |  |  |
| [Space 2 / Level 2] |  |  |
| [Space 3 / Level 3] |  |  |
| TOTAL |  |  |

Note: Project teams may add more rows as required or use an attachment to display this information.

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) |
| [####] | [####] |
| [####] | [####] |

DISCUSSION

Outline any issues you would like to highlight and clarify with 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** –––