LIGHT — Light

Artificial lighting provides for people's safety and security at night, as well as enabling many activities to occur during hours of darkness, and a variety of other beneficial applications, including during the day.

However, the overuse of artificial light, or poorly designed lighting schemes, can impact on people's sleep, safety, and security, can cause annoyance, discomfort, or distraction, or interfere with other tasks, as well as degrade views of the natural night sky, and disturb terrestrial and marine wildlife.

This chapter sets out standards that lighting installations should be designed and operated to. For designs that do not meet these standards, the resource consent process allows designs to be considered on a case by case basis.

The limits and assessment methods in this chapter are based on Australian/New Zealand Standard 4282:2023, "Control of the Obtrusive Effects of Outdoor Lighting". This standard is incorporated by reference and will be necessary to determine conformance by calculation for larger or more complex lighting schemes. However, for simple lighting schemes or where conformance is demonstrated by measurement this standard may not be needed.

Objectives

LIGHT-O1	Artificial lighting enabled
Activities that require or benefit from artificial lighting can have appropriate artificial lighting.	
LIGHT-O2	**Darkness in sleeping places**
Habitable spaces used for people to sleep in are sufficiently dark during the restricted lighting period so as not to disturb people's sleep.	
LIGHT-O3	**Lighting protects personal safety and security**
Public spaces and other areas open to the public are lit, or left unlit, in a way that: 1. Avoids glare, 2. Protects personal safety, including safety while using the transport network, and 3. Provides for personal security, which includes where compatible, the perception of personal security.	
LIGHT-O4	**Unreasonable obtrusion of light**
People are not unreasonably annoyed, discomforted, distracted, or interfered with in everyday tasks by light spill or glare.	
LIGHT-O5	**Views of the night sky**
Rural areas, regional parks, and protected dark sky areas maintain the high quality of their views of the night sky during the restricted lighting period.	
LIGHT-O6	**Light sensitive areas**
The natural and cultural values and the character of light sensitive areas are protected from the adverse effects of excessive artificial light, including effects on: 1. The natural character of identified outstanding natural features and landscapes and identified areas of high, very high, or outstanding coastal natural character, and 2. Indigenous fauna in coastal margins and the coastal marine area.	

Policies

LIGHT-P1	Providing for and managing artificial lighting
Provide for artificial lighting that is appropriately designed in its intensity, location, direction, shielding, and other design elements so that it: 1. Enables the safe and efficient use of indoor and outdoor areas at night, 2. Recognises the functional needs and operational needs of the transport network and other significant infrastructure, 3. Protects the darkness of habitable spaces used for sleeping during the restricted lighting period, 4. Supports the health, safety, and security of people and communities, including transport network safety and perceived personal security, 5. Protects people from unreasonable annoyance, discomfort, distraction, or interference with their everyday tasks, by minimising unreasonable light spill and glare, 6. Minimises light spill and unnecessary sky glow that impacts on views of the night sky, during the restricted	

lighting period, in areas with high quality views, having particular regard to cumulative impacts, and
7. Protects the identified natural and cultural values and the character of light sensitive areas.

Rules

Note:
These rules apply to all activities that involve artificial light, in addition to any other relevant zone, precinct, overlay, or district-wide rules. Rules that vary by zone or other spatial layer apply to the location where the light is emitted - the body of the rules and standards specifies how the requirements apply to receiving locations.

LIGHT-R1	Artificial light
All zones	1. **Activity status:** Permitted Where: a. The lighting complies with: i. LIGHT-S1: Light spill, or ii. LIGHT-S2: Lighting within light sensitive areas, or iii. LIGHT-S3: Sky glow, or iv. LIGHT-S4: Glare, or v. LIGHT-S5: Illuminated surfaces, or vi. LIGHT-S6: General standards, or b. The lighting is within a building or structure and the light does not spill outside that building or structure, or c. One of the exceptions in appendix LIGHT-APP1 applies.
All zones	2. **Activity status:** Restricted discretionary Where: a. Compliance is not achieved with LIGHT-R1.1a. **Matters of discretion are restricted to:** 1. Any positive effects arising from the artificial lighting that would not arise if the relevant standards were met. 2. Any functional needs or operational needs of the activity requiring artificial light. 3. Cumulative effects. 4. The matters of discretion in any standard not met.

Standards

LIGHT-S1	Light spill
All Zones	1. Lighting must not result in excess illuminance above background levels greater than the limits in LIGHT-TABLE1 at: a. The centre of the exterior surface of any exterior window of a habitable room, b. The notional boundary of any residential unit in a rural zone or open space and recreation zone, in the vertical plane through that boundary, at any point between 1.5m above ground level and the maximum permitted height for that zone, c. 1 metre back from the boundary into the affected site, in the vertical plane, in any part of a site where a building containing a habitable room could be built, at any point between 1.5m above ground level and the maximum permitted height for that zone, and d. The boundary of any light sensitive area, as measured in the vertical plane. 2. The limits in LIGHT-TABLE1 apply based on the zone of the location at which the light spill is measured, or at a site boundary that is also a zone boundary, the more restrictive limit of the two zones. **Matters of discretion where standard not met:** 1. Disturbance of people's sleep. 2. Any unreasonable annoyance, discomfort, distraction, or interference with everyday tasks from light spill. 3. Personal safety and security. 4. Transport network safety. 5. Impacts on views of the night sky. 6. The identified character or ecological values of the light sensitive area (where 1d is not met).
LIGHT-S2	**Lighting within light sensitive areas**
Light Sensitive	1. Lighting emitted within light sensitive areas must not result in excess illuminance above

Areas	background levels greater than the limits in LIGHT-TABLE1 for light sensitive areas at any point more than 20 metres from a building as measured in the horizontal plane, or in the vertical plane perpendicular to the light source, 2. Luminaires shall have an upward light ratio of 0%, and 3. Outdoor luminaires shall have a colour corrected temperature of no greater than 3,000K. Note 1: An upward light ratio of 0% means that the luminaire is shielded so that all light is emitted downward. Note 2: For light emitted from outside a light sensitive area but illuminating a light sensitive area, see standard LIGHT-S1: Light spill. **Matters of discretion where standard not met:** 1. Personal safety and security. 2. Transport network safety. 3. Impacts on views of the night sky. 4. The identified character or ecological values of the light sensitive area.
LIGHT-S3	**Sky glow**
Light Sensitive Areas	See requirements in standard LIGHT-S2: Lighting within light sensitive area.
Residential Zones **Rural Zones** **Open Space and Recreation Zones** (other than a Light Sensitive Area)	1. Internally illuminated signs shall not exceed an upward light ratio of 50%. 2. Digital signs shall not exceed an upward light ratio of 45%. 3. Other outdoor luminaires shall not exceed an upward light ratio of 1%. 4. This requirement does not apply to any lighting that: a. is installed and operated so that it is not lit during the restricted lighting period, or b. is portable and used for a temporary activity, or c. is portable and handheld. **Matters of discretion where standard not met:** 1. Impacts on views of the night sky.
Commercial and Mixed Use Zones **Industrial Zones** **Hospital Zone** **Tertiary Education Zone** **Quarry Zone** **Marae Zone** **Seaview Marina** (other than a Light Sensitive Area)	1. Internally illuminated signs shall not exceed an upward light ratio of 50%. 2. Digital signs shall not exceed an upward light ratio of 45%. 3. Other outdoor luminaires shall not exceed an upward light ratio of 3%. 4. This requirement does not apply to any lighting that: a. Is installed and operated so that it is not lit during the restricted lighting period, or b. Is portable and used for a temporary activity, or c. Is portable and handheld. **Matters of discretion where standard not met:** 1. Impacts on views of the night sky.
LIGHT-S4	**Glare**
All Zones	1. No luminaire used for outdoor lighting shall have a luminous intensity greater than the limits in LIGHT-TABLE2. 2. Outdoor lighting shall be aimed or screened so that the light is not directed into: a. Any other site, or b. A legal road, where the luminaire is not within the legal road, or c. A railway designation, where the luminaire is not within the railway designation. **Matters of discretion where standard not met:** 1. Disturbance of people's sleep. 2. Any unreasonable annoyance, discomfort, distraction, or interference with everyday tasks from light spill. 3. Personal safety and security. 4. Transport network safety (if 2(b) or 2(c) are not met).
LIGHT-S5	**Illuminated surfaces**

All Zones	1. Any sign, display screen, or building façade that is intentionally lit, whether externally or internally, and visible from outside the site, shall have an average luminance no greater than the limits in LIGHT-TABLE3 during the restricted lighting period. **Matters of discretion where standard not met:** 1. Disturbance of people's sleep. 2. Any unreasonable annoyance, discomfort, distraction, or interference with everyday tasks from light spill. 3. Personal safety and security. 4. Transport network safety. 5. Impacts on views of the night sky.
LIGHT-S6	**General standards**
All Zones	1. Where conformance with the standards in this chapter is to be determined by measurement: a. Measurements of illuminance at a boundary take place at a height of 1.5m, b. If it is not possible to measure the illuminance above background levels because the lighting cannot be turned off, measurements shall be made in areas of a similar nature that are not affected by the lighting. The result of these measurements shall be used for determining the effects of the lighting, and c. The methods in section 5 of AS/NZS 4282:2023 (Control of the obtrusive effects of outdoor lighting) can be used, except as provided in appendix LIGHT-APP2. 2. Where conformance with the standards in this chapter is to be determined by calculation, the calculation shall be performed in accordance with the methods in sections 3 and 4 of AS/NZS 4282:2023 (Control of the obtrusive effects of outdoor lighting), except as provided in appendix LIGHT-APP2. **Matters of discretion where standard not met:** 1. That it can be adequately demonstrated that the other standards in this chapter are met. 2. The operational requirements of and adequate enforcement of the resource management system. 3. Professional practices in lighting engineering.

LIGHT-TABLE1	**Illumination at site boundary, boundary of light sensitive area, or window**	
Location where the light spill is measured	Outside of the restricted lighting period	During the restricted lighting period
Natural Open Space Zone **Coastal Marine Area** **Outside Lower Hutt** **Light Sensitive Areas**	2 lux	0.1 lux
Rural Zones **Open Space Zone** (other than a Light Sensitive Area)	5 lux	1 lux
Residential Zones (other than a Light Sensitive Area)	10 lux	2 lux
City Centre Zone **Metropolitan Centre Zone** **Local Centre Zone** **Neighbourhood Centre Zone**	25 lux	5 lux

Mixed Use Zone **Industrial Zones** **Sport and Active Recreation Zone** **Quarry Zone** **Tertiary Education Zone** **Hospital Zone** **Marae Zone** **Seaview Marina Zone** (other than a Light Sensitive Area)		
LIGHT-TABLE2	**Maximum luminous intensity per luminaire**	
	Outside of the restricted lighting period	During the restricted lighting period
Natural Open Space Zone **Light Sensitive Areas**	2,500 cd	500 cd
Rural Zones **Open Space Zone** **Quarry Zone** (other than a Light Sensitive Area)	7,500 cd	1,000 cd
Residential Zones **Neighbourhood Commercial Zone** **Mixed Use Zone** (other than a Light Sensitive Area)	12,500 cd	2,500 cd
City Centre Zone **Metropolitan Centre Zone** **Local Centre Zone** **Industrial Zones** **Sport and Active Recreation Zone** **Hospital Zone** **Tertiary Education**	25,000 cd	2,500 cd

Zone **Marae Zone** **Seaview Marina Zone** (other than a Light Sensitive Area)		
LIGHT-TABLE3	**Maximum average luminance of signs, displays, and building façades**	
Natural Open Space Zone **Light Sensitive Areas**	0.1 cd/m²	
Rural Zones **Open Space Zone** **Quarry Zone** (other than a Light Sensitive Area)	150 cd/m²	
Residential Zones (other than a Light Sensitive Area)	250 cd/m²	
City Centre Zone **Metropolitan Centre Zone** **Local Centre Zone** **Mixed Use Zone** **Neighbourhood Centre Zone** **Industrial Zones** **Sport and Active Recreation Zone** **Hospital Zone** **Tertiary Education Zone** **Marae Zone** **Seaview Marina Zone** (other than a Light Sensitive Area)	350 cd/m²	
LIGHT-APP1	**Lighting that is not required to meet standards**	
Lighting does not need to meet the standards in this chapter when: a. The lighting is operated by a road controlling authority for street lighting in any legal road, and the lighting has an upward light ratio of no more than 3%,		

b. The lighting is operated by a road controlling authority for the purpose of traffic signalling in any legal road,
c. The lighting is operated by central government, local government, or a foreign diplomatic mission to illuminate a flag in accordance with Appendix D of AS/NZS 4282:2023,
d. The lighting is for the purpose of railway signalling (including level crossings) and is in a railway designation,
e. The lighting is for an aeronautical navigation installation,
f. The lighting is for a maritime navigation installation,
g. The lighting is on a train or other rail vehicle approved for use on the national rail network,
h. The lighting is on a vehicle that may be lawfully used on a legal road,
i. The lighting's luminaires are, or are part of, a heritage building or structure, and have not been modified to produce greater luminous intensity or a greater upward light ratio since 6 February 2025,
j. The lighting is in the form of lighting chains or other small lighting systems and devices, for example bud lighting, fairy lights, or festoon lights, where:
    i. the individual lights each emit less than 30 lumens,
    ii. the total luminous flux is less than 20,000 lumens, and
    iii. the lighting is not operated during the restricted lighting period, or
k. The lighting is temporary and for an emergency response.

LIGHT-APP2	Application of AS/NZS 4282:2023 (Control of the obtrusive effects of outdoor lighting)

In applying AS/NZS 4282:2023 to the calculation of a lighting installation's conformance with the standards in this chapter:

a. The curfew period means the restricted lighting period.
b. The exclusion of events in section 1.1(a) does not apply.
c. Despite section 3.3.1.2, the environmental zone that applies where light spills from one zone to another is that of where the light is measured, as specified in LIGHT-TABLE1.
d. For the purpose of section 3.3.1.4, the building line where there is no existing building is 1 metre back from the boundary into the receiving site.
e. Despite section 3.3.1.6, no regard shall be had to the presence of obstructions on any site other than the site from which the light is emitted.
f. Where there is any other conflict between the standard and this District Plan, this Plan prevails.