
A BILL FOR AN ACT

RELATING TO LIGHT POLLUTION.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. The legislature finds that the night sky is a
2 tremendously valuable natural and cultural resource for the
3 residents of and visitors to the State. The dark night sky has
4 tremendous scientific value for astronomy and is vitally
5 important for wildlife in the State, including seabirds, sea
6 turtles, pollinators, bats, and coral reefs. Dark night skies
7 are essential for maintaining Native Hawaiian cultural practices
8 and traditions that are closely tied to the visibility of the
9 night sky. In addition, public health and safety benefit from
10 the dark night sky.

11 The legislature further finds that unnecessary light
12 pollution threatens the dark night sky over the Hawaiian
13 islands. The legislature passed Act 287, Session Laws of Hawaii
14 2012 (also known as the Hawaii Night Sky Protection Act), to
15 address light pollution. The Hawaii Night Sky Protection Act
16 implemented recommendations from the starlight reserve
17 committee, a temporary advisory committee formed pursuant to Act



1 161, Session Laws of Hawaii 2009, to assist the department of
2 business, economic development, and tourism to develop a
3 statewide starlight reserve strategy to preserve the quality of
4 the night sky and its associated cultural, scientific,
5 astronomical, natural, and landscape-related values. Act 185,
6 Session Laws of Hawaii 2017, established the dark night skies
7 protection advisory committee, whose purpose is to assist the
8 university of Hawaii in developing a statewide dark night skies
9 protection strategy.

10 Therefore, the purpose of this Act is to implement the
11 recommendations of the statewide dark night skies protection
12 strategy to prevent light pollution by establishing requirements
13 for outdoor light fixtures throughout the State.

14 SECTION 2. Chapter 201, Hawaii Revised Statutes, is
15 amended by adding a new section to be appropriately designated
16 and to read as follows:

17 "§201- Statewide dark night skies protection strategy;
18 establishment of outdoor light fixture requirements throughout
19 the State. (a) Beginning July 1, 2027, all new outdoor light
20 fixtures shall comply with outdoor light fixture requirements
21 for backlighting, uplight, and glare pursuant to subsections (b)



1 and (c), subject to the appropriate county permit and inspection
2 requirements thereof, except for new outdoor light fixtures
3 affecting turtle nesting habitat.

4 (b) An outdoor light fixture shall be considered to comply
5 with backlighting, uplight, and glare light fixture requirements
6 when:

7 (1) The outdoor light fixture is on the DLC-LUNA list; or

8 (2) The outdoor light fixture has a maximum American
9 National Standards Institute (ANSI)/Illuminating
10 Engineering Society of North America (IES) uplight
11 rating of U1 per ANSI/IES TM-15-20, a correlated color
12 temperature that shall not exceed three thousand
13 Kelvin, a continuous dimming capability of twenty per
14 cent of maximum output power or lower, and at least
15 one shielding option; provided that dimming shall be
16 performed automatically by a control system.

17 (c) In addition to the requirements of subsection (b), to
18 mitigate glare and light trespass, all outdoor light fixtures
19 shall be equipped with shielding, filters, lenses, or cutoff
20 devices required to eliminate light trespass onto any street or
21 abutting lot or parcel, to eliminate glare perceptible to



1 persons on any street or abutting lot or parcel, and to minimize
2 uplighting.

3 (d) Outdoor light fixtures shall be extinguished or dimmed
4 by a minimum of seventy-five per cent during curfew hours,
5 unless otherwise superseded by county building codes. Light
6 trespass shall not occur, and outdoor light fixtures shall be
7 extinguished or dimmed during the curfew hours of:

8 (1) Between 10:00 p.m. and sunrise for residential users;
9 and

10 (2) Between 10:00 p.m. and sunrise for all commercial
11 users, unless normal operating hours end or begin
12 within the hours of curfew, in which case light
13 trespass restrictions shall apply until one hour after
14 closing or one hour before opening.

15 (e) The following outdoor light fixtures are exempt from
16 the requirements of subsections (b), (c), and (d):

17 (1) Open flame gas lamps;

18 (2) Low-wattage fixtures used for holiday decorations;

19 (3) Outdoor advertising signs, if the signs are:

20 (A) Constructed of translucent material; and



- 1 (B) Illuminated totally from within and colored with
2 an opaque background using translucent letters or
3 symbols,
4 subject to the curfew hours set forth in subsection
5 (d);
- 6 (4) Search lights used for advertising purposes, except
7 that the operation of the lights shall be limited to
8 the hours of dusk to 10:00 p.m.; and
- 9 (5) Emergency lighting required for public safety.
- 10 (f) Outdoor light fixtures affecting turtle nesting
11 habitats shall be exempt from subsections (b), (c), and (d);
12 provided that outdoor light fixtures affecting turtle nesting
13 habitats shall comply with section 205A-71 and this section
14 when:
- 15 (1) Designated as Turtle Lighting, Zero-Uplight fixtures
16 on the DLC-LUNA list; or
- 17 (2) The outdoor light fixture:
- 18 (A) Uses narrowband or direct-emission amber
19 light-emitting diodes with the sum of the optical
20 radiation between 380 nm to 560 nm equal to one



- 1 per cent or less of the total optical radiation
2 between 330 nm to 700 nm;
- 3 (B) Has a maximum ANSI/IES uplight rating of U0 and a
4 maximum glare rating of B1 per ANSI/IES TM-15-20,
5 unless otherwise stated;
- 6 (C) Has a continuous dimming capability of twenty per
7 cent of maximum output power or lower; and
- 8 (D) Has at least one shielding option for pole-
9 mounted light fixtures.
- 10 (g) Pole-mounted outdoor light fixtures shall have a
11 maximum light output of 10,000 lumens. All pole-mounted outdoor
12 light fixtures shall face away from the shoreline and have a
13 house side shield to ensure that the light source is:
- 14 (1) Not visible from sea turtle nests or the waterline;
15 and
- 16 (2) Six inches above the waterline at turtle eye height.
- 17 (h) Wall-mounted or ceiling- or canopy-mounted outdoor
18 light fixtures shall have a maximum light output of 2,500
19 lumens. All wall-mounted or ceiling- or canopy-mounted outdoor
20 light fixtures that face the shoreline shall be shielded so that
21 the light source is:



1 (1) Not visible from sea turtle nests or the waterline;

2 and

3 (2) Six inches above the waterline at turtle eye height.

4 (i) Bollards shall have a maximum light output of 1,000

5 lumens and an ANSI/IES glare rating of B0. All bollards that

6 face the shoreline shall be shielded so that the light source

7 is:

8 (1) Not visible from sea turtle nests or the waterline;

9 and

10 (2) Six inches above the waterline at turtle eye height.

11 (j) All outdoor light fixtures planned and approved by the

12 counties or existing and legally installed before June 30, 2026,

13 shall be exempt from the requirements of subsections (b), (c),

14 and (d); provided that when existing outdoor light fixtures

15 become inoperable, the outdoor light fixtures that replace them

16 shall comply with the requirements of this section.

17 (k) Outdoor light fixtures for airports, highways, and

18 commercial harbors shall be exempt from the requirements of this

19 section.

20 (l) This section shall be considered to be supplemental to

21 any county lighting ordinance or rule and shall not be construed



1 to supersede or modify any county lighting ordinance or rule;
2 provided that:

3 (1) The county lighting ordinance or rule is not less
4 restrictive than this section; and
5 (2) This section shall not apply to counties with
6 populations of less than one hundred thousand persons.

7 (m) This section shall be construed in conjunction with
8 section 201-8.5.

9 (n) For the purposes of this section:

10 "County" includes the county of Hawaii, city and county of
11 Honolulu, county of Kauai, and county of Maui.

12 "DLC-LUNA list" means a light fixture, retrofit kit, or
13 lamp on the DesignLights Consortium (DLC) Light Usage for Night
14 Applications (LUNA) Qualified Products List (QPL).

15 "Glare" means light emitted from an outdoor light fixture
16 with sufficient intensity to produce annoyance, discomfort, or a
17 reduction in a viewer's ability to see.

18 "Light trespass" means direct light emitted by an outdoor
19 light fixture that shines beyond the boundaries of the property
20 on which the outdoor light fixture is installed.



1 "Low wattage" means a light fixture on one plug or set of
2 light fixtures on one plug using five watts or less."

3 SECTION 3. New statutory material is underscored.

4 SECTION 4. This Act shall take effect on July 1, 2050.



S.B. NO. 2987
S.D. 1

Report Title:

Light Pollution; Outdoor Light Fixtures; Requirements

Description:

Beginning 7/1/2027, establishes outdoor light fixture requirements throughout the State. Effective 7/1/2050. (SD1)

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