
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 Hawaii. The dark night sky has
4 tremendous scientific value for astronomy and is vitally
5 important for wildlife in Hawaii, 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 from state agencies. The Hawaii Night
16 Sky Protection Act implemented recommendations from the
17 starlight reserve committee, a temporary advisory committee



1 formed by Act 161, Session Laws of Hawaii 2009, to assist the
2 department of business, economic development, and tourism to
3 develop a statewide starlight reserve strategy to preserve the
4 quality of the night sky and its associated cultural,
5 scientific, astronomical, natural, and landscape-related values.
6 Act 185, Session Laws of Hawaii 2017, established the dark night
7 skies protection advisory committee, whose purpose is to assist
8 the university of Hawaii in developing a statewide dark night
9 skies 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) Except as provided in subsection (k), beginning
20 July 1, 2027, all new outdoor light fixtures shall comply with
21 outdoor light fixture requirements for backlighting, uplight,



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

5 (b) An outdoor light fixture is considered to comply with
6 backlighting, uplight, and glare light fixture requirements when
7 the outdoor light fixture:

- 8 (1) Is on the DLC-LUNA list; or
- 9 (2) Has a maximum ANSI/IES Uplight Rating of U1 per
10 ANSI/IES TM-15-20, a correlated color temperature that
11 shall not exceed three thousand Kelvin, a continuous
12 dimming capability of twenty per cent of maximum
13 output power or lower, and has at least one shielding
14 option; provided that dimming shall be performed
15 automatically by a control system.

16 (c) In addition to the requirements of subsection (b), to
17 mitigate glare and light trespass, all outdoor light fixtures
18 shall be equipped with shielding, filters, lenses, or cutoff
19 devices required to eliminate light trespass onto any street or
20 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; provided
6 that for a commercial user whose normal operating hours end or
7 begin between 10:00 p.m. and sunrise, "curfew hours" means
8 between 10:00 p.m. or one hour after closing, whichever is
9 later, and sunrise or one hour before opening, whichever is
10 earlier.

11 (e) The following outdoor light fixtures shall be exempt
12 from the requirements of subsections (b), (c), and (d):

13 (1) Open flame gas lamps;

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

15 (3) Outdoor advertising signs, when used during curfew
16 hours, if the signs are:

17 (A) Constructed of translucent material; and

18 (B) Illuminated totally from within and colored with
19 an opaque background using translucent letters or
20 symbols;



1 (4) Search lights used for advertising purposes; provided
2 that the operation of such lights shall be limited to
3 the hours of dusk to 10:00 p.m.; and

4 (5) Emergency lighting required for public safety.

5 (f) Outdoor light fixtures affecting turtle nesting
6 habitats shall comply with section 205A-71 and meet the
7 following specific turtle nesting standards rather than
8 subsection (b):

9 (1) The outdoor light fixture is designated as a Turtle
10 Lighting, Zero Uplight fixtures on the DLC-LUNA list;
11 or

12 (2) The outdoor light fixture:

13 (A) Uses narrowband or direct-emission amber light-
14 emitting diodes with the sum of the optical
15 radiation between three hundred eighty nanometers
16 to five hundred sixty nanometers equal to one per
17 cent or less of the total optical radiation
18 between three hundred thirty nanometers to seven
19 hundred nanometers;



- 1 (B) Has a maximum ANSI/IES Uplight Rating of U0 and a
2 maximum glare rating of G1 per ANSI/IES TM-15-20,
3 unless otherwise stated;
- 4 (C) Has a continuous dimming capability of twenty per
5 cent of maximum output power or lower; and
- 6 (D) Has at least one shielding option for pole-
7 mounted light fixtures.

8 Pole-mounted outdoor light fixtures shall have a maximum
9 light output of ten thousand lumens. All pole-mounted outdoor
10 light fixtures shall face away from the shoreline and have a
11 house side shield to ensure that the light source is not visible
12 from sea turtle nests or the waterline and is six inches above
13 the ground at the mean high tide line (turtle eye height).

14 Wall-mounted or ceiling- or canopy-mounted outdoor light
15 fixtures shall have a maximum light output of two thousand five
16 hundred lumens. All wall-mounted or ceiling-mounted outdoor
17 light fixtures that face the shoreline shall be shielded so that
18 the light source is not visible from sea turtle nests or the
19 waterline and is six inches above the ground at the mean high
20 tide line (turtle eye height).



1 Bollards shall have a maximum light output of one thousand
2 lumens and an ANSI/IES Glare Rating of G0. All bollards that
3 face the shoreline shall be shielded so that the light source is
4 not visible from sea turtle nests or the waterline and is six
5 inches above the ground at the mean high tide line (turtle eye
6 height).

7 (g) All outdoor light fixtures planned and approved by the
8 counties or existing and legally installed before June 30, 2026,
9 shall be exempt from the requirements of subsections (b), (c),
10 and (d); provided that when an existing outdoor light fixture
11 becomes inoperable, the outdoor light fixture that replaces it
12 shall comply with the requirements of this section.

13 (h) Outdoor light fixtures for airports, highways, and
14 harbors shall comply with this section, except as required by
15 any safety regulation or federal law, regulation, or mandate,
16 pursuant to sections 262-4.5, 264-45, and 266-2.5, respectively.

17 (i) This section shall be considered to be supplemental to
18 any county lighting ordinance or rule and shall not be construed
19 to supersede or modify any county lighting ordinance or rule;
20 provided that:



- 1 (1) The county lighting ordinance or rule is no less
2 restrictive than this section; and
- 3 (2) This section shall not apply to counties with
4 populations of less than one hundred thousand persons.
- 5 (j) This section shall be construed in conjunction with
6 section 201-8.5; provided that, where both this section and
7 section 201-8.5 apply, the more restrictive requirement shall
8 govern.
- 9 (k) Notwithstanding subsection (a), all outdoor light
10 fixtures planned and approved for department of education
11 facilities by any county, or existing and legally installed
12 before June 30, 2026, or that are in design before July 1, 2027,
13 shall be exempt from the requirements of this section. This
14 exemption shall include outdoor lighting fixtures used for
15 school and public safety, campus security, emergency response,
16 or other school-authorized activities.
- 17 (l) As used in this section:
- 18 "ANSI/IES" means American National Standards Institute
19 (ANSI)/Illuminating Engineering Society of North America (IES).
- 20 "County" includes the city and county of Honolulu, county
21 of Hawaii, county of Kauai, and county of Maui.



1 "Curfew hours" means:

2 (1) For residential uses: between 10:00 p.m. to sunrise;
3 and

4 (2) For all commercial users: between 10:00 p.m. and
5 sunrise, except as otherwise provided in this section.

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

9 "Glare" means light emitted from an outdoor light fixture
10 with enough intensity to produce annoyance, discomfort, or a
11 reduction in a viewer's ability to see.

12 "Light trespass" means direct light emitted by an outdoor
13 light fixture that shines beyond the boundaries of the property
14 on which the outdoor light fixture is installed.

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

17 SECTION 3. New statutory material is underscored.

18 SECTION 4. This Act shall take effect on July 1, 3000.



Report Title:

Light Pollution; Outdoor Light Fixtures

Description:

Beginning 7/1/2027, establishes outdoor light fixture requirements throughout the State. Provides certain exemptions for Department of Education facilities. Effective 7/1/3000.
(HD2)

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