

**First Regular Session
Sixty-third General Assembly
STATE OF COLORADO**

INTRODUCED

LLS NO. 01-0618.01 Christy Chase

HOUSE BILL 01-1160

HOUSE SPONSORSHIP

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SENATE SPONSORSHIP

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A BILL FOR AN ACT

101 **CONCERNING ENERGY-EFFICIENT STANDARDS FOR CERTAIN NEW**
102 **OUTDOOR LIGHTING FIXTURES FUNDED BY THE STATE.**

Bill Summary

(Note: This summary applies to this bill as introduced and does not necessarily reflect any amendments that may be subsequently adopted.)

Authorizes the use of state funds to install any new outdoor lighting fixture only if:

- For outdoor lighting fixtures with a rated output greater than a certain level of lumens, the new outdoor lighting fixture is a full cutoff luminaire;
- The minimum illuminance adequate for the intended purpose is used with consideration given to nationally recognized standards;

Shading denotes HOUSE amendment. Double underlining denotes SENATE amendment.
*Capital letters indicate new material to be added to existing statute.
Dashes through the words indicate deletions from existing statute.*

- Full consideration has been given to energy conservation, glare reduction, the minimization of light trespass and pollution, and the preservation of the natural night environment; and
- For purposes of lighting state highways, the department of transportation determines that the installation of reflective road markers, lines, warning or informational signs, or other methods that do not require the use of artificial lighting will not achieve the purpose of an outdoor lighting fixture.

Makes exceptions when:

- Federal law or regulation preempts the restrictions;
- The outdoor lighting fixture is used temporarily for emergency purposes;
- The outdoor lighting fixture is used temporarily for nighttime work;
- Additional illumination is required for a special event or situation as long as the lighting is installed so as to shield the fixture from direct view and to minimize upward lighting and light pollution;
- The outdoor lighting fixture is used solely to enhance the aesthetic beauty of an object; or
- A compelling safety interest exists that cannot be addressed by another method.

Makes legislative declarations regarding the standards for new outdoor lighting fixtures, including an encouragement for local governments and commercial establishments to comply with the standards.

Defines terms.

1 *Be it enacted by the General Assembly of the State of Colorado:*

2 **SECTION 1. Legislative declaration.** (1) The general assembly
3 hereby finds and declares that:

4 (a) Energy costs in the state have been on the rise in recent years
5 due in part to increased energy consumption and decreased energy
6 efficiency and conservation.

7 (b) Properly directed lighting can save up to fifty percent in
8 operation costs, resulting in a more efficient use of tax dollars to pay for
9 state-funded light fixtures.

1 (c) Improperly aimed lighting can produce unsafe conditions such
2 as glare and deep shadows and can contribute to light pollution of the
3 night sky.

4 (d) Properly aimed lighting can minimize light trespass and
5 pollution, reduce glare, and improve the view of the night sky, thereby
6 preserving one of Colorado's natural resources.

7 (e) It is the declared policy of the state of Colorado to conserve
8 energy, reduce glare, and minimize light trespass and pollution, and
9 requiring state agencies and encouraging local governments and
10 commercial entities, when installing new outdoor lighting fixtures, to use
11 certain types of outdoor lighting fixtures that conserve energy, reduce
12 glare, and minimize light trespass and pollution is necessary to advance
13 such policy.

14 **SECTION 2.** Article 82 of title 24, Colorado Revised Statutes, is
15 amended BY THE ADDITION OF A NEW PART to read:

16 **PART 9**

17 **OUTDOOR LIGHTING FIXTURES**

18 **24-82-901. Definitions.** AS USED IN THIS PART 9, UNLESS THE
19 CONTEXT OTHERWISE REQUIRES:

20 (1) "ENERGY CONSERVATION" MEANS REDUCING ENERGY COSTS
21 AND RESOURCES USED AND INCLUDES USING A LIGHT WITH LOWER
22 WATTAGE OR A TIMER SWITCH.

23 (2) "FULL CUTOFF LUMINAIRE" MEANS A LUMINAIRE THAT ALLOWS
24 NO DIRECT LIGHT EMISSIONS ABOVE A HORIZONTAL PLANE THROUGH THE
25 LUMINAIRE'S LOWEST LIGHT-EMITTING PART.

26 (3) "GLARE" MEANS DIRECT LIGHT EMITTING FROM A LUMINAIRE
27 THAT CAUSES REDUCED VISION OR MOMENTARY BLINDNESS.

1 (4) "LIGHT POLLUTION" MEANS THE NIGHT SKY GLOW CAUSED BY
2 THE SCATTERING OF ARTIFICIAL LIGHT IN THE ATMOSPHERE.

3 (5) "LIGHT TRESPASS" MEANS LIGHT EMITTED BY A LUMINAIRE
4 THAT SHINES BEYOND THE BOUNDARIES OF THE PROPERTY ON WHICH THE
5 LUMINAIRE IS LOCATED.

6 (6) "LUMINAIRE" MEANS THE COMPLETE LIGHTING SYSTEM,
7 INCLUDING THE LAMP AND THE FIXTURE.

8 (7) (a) "OUTDOOR LIGHTING FIXTURE" MEANS ANY TYPE OF FIXED
9 OR MOVABLE LIGHTING EQUIPMENT THAT IS DESIGNED OR USED FOR
10 ILLUMINATION OUTDOORS AND INCLUDES:

11 (I) AREA LIGHTING; AND

12 (II) BILLBOARD LIGHTING, STREET LIGHTS, SEARCHLIGHTS, AND
13 OTHER LIGHTING USED FOR ADVERTISING PURPOSES.

14 (b) "OUTDOOR LIGHTING FIXTURE" DOES NOT INCLUDE LIGHTING
15 EQUIPMENT THAT IS REQUIRED BY LAW TO BE INSTALLED ON MOTOR
16 VEHICLES OR LIGHTING REQUIRED FOR THE SAFE OPERATION OF AIRCRAFT
17 OR WATERCRAFT.

18 (8) "SPECIAL EVENT OR SITUATION" INCLUDES, BUT IS NOT LIMITED
19 TO, SPORTING EVENTS AND THE ILLUMINATION OF MONUMENTS, HISTORIC
20 STRUCTURES, OR FLAGS.

21 **24-82-902. Outdoor lighting fixtures funded by the state -**
22 **standards.** (1) ON OR AFTER JULY 1, 2002, ANY NEW OUTDOOR LIGHTING
23 FIXTURE INSTALLED USING STATE FUNDS SHALL MEET THE FOLLOWING
24 REQUIREMENTS:

25 (a) FOR OUTDOOR LIGHTING FIXTURES WITH A RATED OUTPUT
26 GREATER THAN ONE THOUSAND EIGHT HUNDRED LUMENS, THE FIXTURE IS
27 A FULL CUTOFF LUMINAIRE;

1 (b) THE MINIMUM ILLUMINANCE ADEQUATE FOR THE INTENDED
2 PURPOSE IS USED WITH CONSIDERATION GIVEN TO NATIONALLY
3 RECOGNIZED STANDARDS;

4 (c) FULL CONSIDERATION HAS BEEN GIVEN TO ENERGY
5 CONSERVATION, GLARE REDUCTION, THE MINIMIZATION OF LIGHT
6 POLLUTION, AND THE PRESERVATION OF THE NATURAL NIGHT
7 ENVIRONMENT; AND

8 (d) FOR PURPOSES OF LIGHTING A DESIGNATED HIGHWAY IN THE
9 STATE HIGHWAY SYSTEM, THE DEPARTMENT OF TRANSPORTATION
10 DETERMINES THAT THE PURPOSE OF THE OUTDOOR LIGHTING FIXTURE
11 CANNOT BE ACHIEVED BY THE INSTALLATION OF REFLECTIVE ROAD
12 MARKERS, LINES, WARNING OR INFORMATIONAL SIGNS, OR OTHER
13 EFFECTIVE METHODS THAT DO NOT REQUIRE THE USE OF ARTIFICIAL LIGHT.

14 (2) THE PROVISIONS OF SUBSECTION (1) OF THIS SECTION SHALL
15 NOT APPLY IF:

16 (a) A FEDERAL LAW OR REGULATION PREEMPTS STATE LAW;

17 (b) THE OUTDOOR LIGHTING FIXTURE IS USED ON A TEMPORARY
18 BASIS TO PROVIDE ILLUMINATION FOR EMERGENCY PERSONNEL IN AN
19 EMERGENCY SITUATION;

20 (c) THE OUTDOOR LIGHTING FIXTURE IS USED ON A TEMPORARY
21 BASIS FOR NIGHTTIME WORK;

22 (d) ADDITIONAL ILLUMINATION IS REQUIRED FOR A SPECIAL EVENT
23 OR SITUATION; EXCEPT THAT ANY ADDITIONAL ILLUMINATION REQUIRED
24 FOR A SPECIAL EVENT OR SITUATION SHALL BE INSTALLED SO AS TO SHIELD
25 THE OUTDOOR LIGHTING FIXTURES FROM DIRECT VIEW AND TO MINIMIZE
26 UPWARD LIGHTING AND LIGHT POLLUTION;

27 (e) THE OUTDOOR LIGHTING FIXTURE IS USED SOLELY TO ENHANCE

1 THE AESTHETIC BEAUTY OF AN OBJECT; OR

2 (f) A COMPELLING SAFETY INTEREST EXISTS THAT CANNOT BE
3 ADDRESSED BY ANOTHER METHOD.

4 **SECTION 3. Effective date.** This act shall take effect at 12:01
5 a.m. on the day following the expiration of the ninety-day period after
6 final adjournment of the general assembly that is allowed for submitting
7 a referendum petition pursuant to article V, section 1 (3) of the state
8 constitution; except that, if a referendum petition is filed against this act
9 or an item, section, or part of this act within such period, then the act,
10 item, section, or part, if approved by the people, shall take effect on the
11 date of the official declaration of the vote thereon by proclamation of the
12 governor.