

**ASSEMBLY, No. 2633**

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**STATE OF NEW JERSEY**

**219th LEGISLATURE**

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INTRODUCED FEBRUARY 13, 2020

**Sponsored by:**  
**Assemblyman RAJ MUKHERJI**  
**District 33 (Hudson)**

**SYNOPSIS**

Requires outdoor lighting fixtures installed or replaced by, or on behalf of State, or at projects receiving State funds, to meet certain criteria.

**CURRENT VERSION OF TEXT**

As introduced.



**(Sponsorship Updated As Of: 2/13/2020)**

1 AN ACT concerning certain outdoor lighting fixtures and  
2 supplementing Title 52 of the Revised Statutes.

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4 **BE IT ENACTED** *by the Senate and General Assembly of the State*  
5 *of New Jersey:*

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7 1. As used in this act:

8 “Energy conservation” means the reduction of energy costs and  
9 resources by use of methods including, but not limited to, the use of  
10 light fixtures with the lowest feasible wattage or a photo-sensitive  
11 or timer switch.

12 “Full cutoff fixture” means a luminaire whose luminous intensity  
13 in candelas at or above an angle of 90 degrees above nadir does not  
14 numerically exceed 2.5 percent of the luminous flux, in lumens, of  
15 the lamp or lamps in the luminaire, and the luminous intensity, in  
16 candelas, at or above a vertical angle of 80 degrees above nadir  
17 does not numerically exceed 10 percent of the luminous flux of the  
18 lamp or lamps in the luminaire.

19 “Fully shielded luminaire” means a luminaire that allows no  
20 direct light emissions above a horizontal plane through the lowest  
21 light-emitting part of the luminaire.

22 “Glare” means direct light emitting from a luminaire that is  
23 significantly greater than luminance to which the eyes are adapted  
24 which causes reduced vision or momentary blindness.

25 “Illuminance” means the unit measure of light at a surface.

26 “Lamp” means the component of a luminaire that produces the  
27 specific form of radiant energy that is observed as light.

28 “Light trespass” means light emitted by a luminaire that shines  
29 beyond the boundaries of the property on which the luminaire is  
30 located.

31 “Lumen” means an international standard unit of luminous flux  
32 representing the quantity of visible light output.

33 “Luminaire” means the complete lighting unit fixture consisting  
34 of a lamp, or lamps and ballasts, together with the parts designed to  
35 distribute light, including, but not limited to, a reflector, lens, and  
36 diffuser, to position and protect the lamps, and to connect the lamps  
37 to the power supply.

38 “Luminous flux” means the measure of the perceived power of  
39 the light in lumens.

40 “Outdoor lighting fixture” means any type of fixed or movable  
41 lighting equipment that is designed or used for illumination  
42 outdoors. “Outdoor lighting fixture” shall not include lighting  
43 equipment that is required by law to be installed on motor vehicles,  
44 or lighting required for the safe operation of aircraft or installed at  
45 an aviation facility.

46 “Project” means the acquisition, construction, improvement,  
47 reconstruction, or repair of all or part of any building, facility,  
48 structure, or real property.

1       “State agency” means any of the principal departments in the  
2 Executive Branch of State Government, and any division, board,  
3 bureau, office, commission, or other instrumentality created by a  
4 principal department and any independent State authority,  
5 commission, instrumentality, or agency established by law.

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7       2. a. Commencing on the effective date of this act, an outdoor  
8 lighting fixture installed or replaced by, or on behalf of, a State  
9 agency, or as part of a project that receives funds from a State  
10 agency, shall comply with the following specifications:

11       (1) the luminaire shall be a fully shielded luminaire;

12       (2) the outdoor lighting fixture shall emit only as much light as  
13 necessary for the intended purpose and shall not exceed the  
14 minimum illuminance level recommended for that purpose by the  
15 Illuminating Engineering Society of North America or the Federal  
16 Highway Administration;

17       (3) the outdoor lighting fixture shall use a full cutoff fixture  
18 when the output of light is greater than 1,800 lumens; and

19       (4) full consideration has been given to energy conservation,  
20 and reducing glare, minimizing light trespass and light pollution,  
21 and preserving the natural night environment.

22       b. The provisions of subsection a. of this section shall not apply  
23 in the following circumstances:

24       (1) the outdoor lighting fixture is used on a temporary basis  
25 because emergency personnel require additional illumination for  
26 emergency procedures;

27       (2) the outdoor lighting fixture is used on a temporary basis for  
28 nighttime work; or

29       (3) a compelling safety interest exists that cannot be addressed  
30 by another method.

31       c. Notwithstanding the provisions of this section to the contrary,  
32 in the case of outdoor lighting fixtures installed along any roadway  
33 in the State, the Department of Transportation shall assess whether  
34 the purpose of the outdoor lighting fixture can be achieved by the  
35 installation of reflective road markers, lines, warning or  
36 informational signs, or other effective passive methods in lieu of the  
37 installation of outdoor lighting fixtures.

38       d. The State Treasurer shall provide guidance to every State  
39 agency concerning the requirements of this act.

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41       3. Notwithstanding the provisions of any other law, or rule or  
42 regulation adopted pursuant thereto, to the contrary, the Director of  
43 the Division of Purchase and Property in the Department of the  
44 Treasury, the Director of the Division of Property Management and  
45 Construction in the Department of the Treasury, or any State agency  
46 having authority to contract for the purchase of goods or services,  
47 shall comply with the requirements of this act.

1        4. This act shall take effect on the first day of the third month  
2 next following the date of enactment.

5	STATEMENT
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7        This bill would require outdoor lighting fixtures installed or  
8 replaced by, or on behalf of, a State agency, or at projects receiving  
9 public moneys from a State agency, to meet certain criteria in order  
0 to reduce light pollution.

The bill would require outdoor lighting fixtures installed or replaced by, or on behalf of, a State agency, or as part of a project that receives funds from a State agency, to comply with the following: (1) the luminaire is a fully shielded luminaire; (2) the outdoor lighting fixture emits only as much light as necessary for the intended purpose and shall not exceed the minimum illuminance level recommended for that purpose by the Illuminating Engineering Society of North America or the Federal Highway Administration; (3) the outdoor lighting fixture uses a full cutoff fixture when the output of light is greater than 1,800 lumens; and (4) full consideration has been given to energy conservation, reducing glare, minimizing light trespass and light pollution, and preserving the natural night environment.

The bill would not apply if the: the outdoor lighting fixture is used on a temporary basis because emergency personnel require additional illumination for emergency procedures; the outdoor lighting fixture is used on a temporary basis for nighttime work; or a compelling safety interest exists that cannot be addressed by another method.

In addition, in the case of outdoor lighting fixtures installed along roadways, the bill requires the Department of Transportation to assess whether the purpose of the outdoor lighting fixture can be achieved by the installation of reflective road markers, lines, warning or informational signs, or other effective passive methods in lieu of the installation of outdoor lighting fixtures.

36 The provisions of the bill would take effect on the first day of the  
37 third month after the bill is enacted into law.

At last 18 other states have enacted laws intended to reduce light pollution in order to promote energy conservation, public safety, aesthetic interests, and astronomical research capabilities. Taking actions to address light pollution will reduce energy usage and energy costs, while also helping to protect and preserve New Jersey's natural nighttime environment. Unshielded outdoor lights are responsible for emitting pollutants and wasted light, and over-lighting during non-daylight hours neither improves visibility nor increases nighttime safety. This bill would help to remove unnecessary lighting and utilize efficient light sources in order to save money and improve the natural nighttime environment.