## ASSEMBLY, No. 5245 STATE OF NEW JERSEY 218th LEGISLATURE

INTRODUCED MAY 13, 2019

Sponsored by: Assemblyman RAJ MUKHERJI District 33 (Hudson) Assemblywoman NANCY J. PINKIN District 18 (Middlesex)

## **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.



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1 AN ACT concerning certain outdoor lighting fixtures and 2 supplementing Title 52 of the Revised Statutes. 3 4 **BE IT ENACTED** by the Senate and General Assembly of the State 5 of New Jersey: 6 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 numerically exceed 2.5 percent of the luminous flux, in lumens, of 14 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. "Light trespass" means light emitted by a luminaire that shines 28 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 diffuser, to position and protect the lamps, and to connect the lamps 36 37 to the power supply. "Luminous flux" means the measure of the perceived power of 38 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 equipment that is required by law to be installed on motor vehicles, 43 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.

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"State agency" means any of the principal departments in the
Executive Branch of State Government, and any division, board,
bureau, office, commission, or other instrumentality created by a
principal department and any independent State authority,
commission, instrumentality, or agency established by law.

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

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

(2) the outdoor lighting fixture shall emit 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 shall use a full cutoff fixturewhen the output of light is greater than 1,800 lumens; and

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

b. The provisions of subsection a. of this section shall not applyin the following circumstances:

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

(2) the outdoor lighting fixture is used on a temporary basis fornighttime work; or

(3) a compelling safety interest exists that cannot be addressedby another method.

c. Notwithstanding the provisions of this section to the contrary,
in the case of outdoor lighting fixtures installed along any roadway
in the State, the Department of Transportation shall 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.

38 d. The State Treasurer shall provide guidance to every State39 agency concerning the requirements of this act.

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

4. This act shall take effect on the first day of the third month

next following the date of enactment.

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**STATEMENT** This bill would require outdoor lighting fixtures installed or 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 10 to reduce light pollution. 11 The bill would require outdoor lighting fixtures installed or 12 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 13 14 following: (1) the luminaire is a fully shielded luminaire; (2) the 15 outdoor lighting fixture emits only as much light as necessary for 16 the intended purpose and shall not exceed the minimum illuminance 17 level recommended for that purpose by the Illuminating 18 Engineering Society of North America or the Federal Highway 19 Administration; (3) the outdoor lighting fixture uses a full cutoff 20 fixture when the output of light is greater than 1,800 lumens; and 21 (4) full consideration has been given to energy conservation, 22 reducing glare, minimizing light trespass and light pollution, and 23 preserving the natural night environment. 24 The bill would not apply if the: the outdoor lighting fixture is 25 used on a temporary basis because emergency personnel require 26 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 28 29 another method. 30 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 32 33 achieved by the installation of reflective road markers, lines, 34 warning or informational signs, or other effective passive methods 35 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.

38 At last 18 other states have enacted laws intended to reduce light 39 pollution in order to promote energy conservation, public safety, 40 aesthetic interests, and astronomical research capabilities. Taking 41 actions to address light pollution will reduce energy usage and 42 energy costs, while also helping to protect and preserve New 43 Jersey's natural nighttime environment. Unshielded outdoor lights 44 are responsible for emitting pollutants and wasted light, and over-45 lighting during non-daylight hours neither improves visibility nor 46 increases nighttime safety. This bill would help to remove 47 unnecessary lighting and utilize efficient light sources in order to 48 save money and improve the natural nighttime environment.