SB3501 Engrossed

1 AN ACT concerning safety.

## Be it enacted by the People of the State of Illinois, represented in the General Assembly:

Section 1. Short title. This Act may be cited as the
Responsible Outdoor Lighting Control Act.

6 Section 5. Findings. The General Assembly finds that:

7 (1) Article XI of the Illinois Constitution states the 8 public policy of the State and the duty of each person is 9 to provide and maintain a healthful environment for the benefit of this and future generations and that 10 the 11 General Assembly shall provide by law for the 12 implementation and enforcement of this policy.

13 (2) The House of Representatives has resolved in House 14 Resolution 884 of the 96th General Assembly to (i) express its support for improved night preservation practices in 15 16 Illinois, (ii) encourage State agencies to adopt suitable 17 outdoor lighting practices based on the principles of applying artificial light only where it is needed, when it 18 19 is needed, and to only the levels needed using the best 20 safety and energy-efficient standards available, and (iii) 21 encourage the Illinois Sustainable Technology Center of 22 the University of Illinois to provide artificial outdoor illumination engineering assistance to State agencies, 23

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1 municipalities, and businesses that seek to implement 2 responsible outdoor lighting to conserve and preserve the 3 important natural phenomenon of night.

(3) The Senate has resolved in Senate Resolution 64 of 4 5 the 103rd General Assembly that local governments in 6 Illinois should abide by the International Dark-Skv 7 (now known as Dark Sky International) Association 8 quidelines and lighting principles to help mitigate the 9 effects of light pollution produced by outdoor lighting.

10 (4) The State should promote responsible outdoor11 lighting.

12 (5) Government structures, facilities, places, and 13 spaces should serve as models of best practices for 14 private structures, facilities, places, and spaces. These 15 government structures, facilities, places, and spaces 16 should encourage residents, business owners, and others to 17 join in transitioning to responsible lighting.

18 Section 10. Definitions. As used in this Act:

19 "ANSI/IES standards" means the American National Standards 20 Institute and Illuminating Engineering Society's lighting 21 guidelines, also known as the IES Lighting Library Standards 22 Collection.

23 "Correlated color temperature" means the measure of the 24 approximate spectrum of the color of light of an object as 25 perceived by the eye, measured in degrees Kelvin. SB3501 Engrossed - 3 - LRB103 36511 AWJ 66617 b

"Fully shielded" means a luminaire that is constructed in such a manner that all light emitted, either directly from the lamp or indirectly by reflection or refraction from any part of the luminaire, is projected below the horizontal plane aligned with the bottom of the luminaire aperture, where no part of the lamp protrudes outside of the luminaire or shield.

7 "Glare" means light emitted by a luminaire that causes
8 visual discomfort, reduced visibility of objects, or produces
9 momentary blindness.

10 "Illuminating Engineering Society Backlight, Uplight, and 11 Glare rating" or "IES BUG rating" means the luminaire 12 classification system developed by the Illuminating 13 Engineering Society that ranks and defines how many lumens of 14 light a luminaire emits backwards, upwards, and in glare.

15 "Lamp" means the component of a luminaire that produces 16 light.

17 "Light pollution" means the scattering of artificial light 18 into the nighttime environment caused by excessive or 19 improperly positioned artificial outdoor lighting resulting in 20 sky glow, light trespass, or glare.

21 "Light trespass" means light emitted by a luminaire that 22 shines beyond the boundaries of the property the luminaire is 23 intended to illuminate.

24 "Luminaire" means a complete installed or portable 25 illuminating device, including a lamp, together with the parts 26 designed to distribute the light, such as a reflector or SB3501 Engrossed - 4 - LRB103 36511 AWJ 66617 b

refractor, parts to position and protect the lamps, and parts
 to connect the lamps to a power supply.

3 "Lumen" means a standard unit of measurement of luminous 4 flux.

5 "Lux" means a standard unit of luminous flux expressed in6 lumens per square meter.

7 "Nadir" means the point on the ground that is directly8 below the center of a luminaire.

9 "Ornamental lighting" means a luminaire that has a 10 historical or seasonal holiday purpose and that serves a 11 historical or seasonal holiday purpose only.

12 "Outdoor luminaire" means installed or portable outdoor 13 artificial illuminating devices used for flood lighting, 14 roadway and area lighting, general illumination, or 15 advertisement.

16 "Permanent outdoor luminaire" means exterior lighting or a 17 system of lighting that is used in place for 7 or more days.

18 "Reflective roadway markings" means lines and markers with 19 reflective properties intended to promote vehicular and 20 pedestrian safety.

21 "Reflective signage" means roadway and informational 22 signage that has reflective properties to aid with vehicular 23 and pedestrian safety.

24 "Responsible lighting principles" means the use of modern 25 lighting technologies, including shielding, an upper limit on 26 color temperature (2,700 Kelvin), on-off controls, dimming SB3501 Engrossed - 5 - LRB103 36511 AWJ 66617 b

1 controls, and motion sensors.

2 "Roadway lighting" means permanent outdoor luminaires that 3 are specifically intended to illuminate roadways for safe 4 vehicular and pedestrian traffic.

5 "Sky glow" means the brightening of the night sky due to6 inefficiently and improperly lit areas.

7 Section 15. Outdoor lighting control. All new luminaires purchased with State funds after the effective date of this 8 Act or installed after the effective date of this Act on a 9 10 structure or land that is owned and managed by the Department 11 Natural Resources, including roadways, of facilities, properties, nonhabitable structures, monuments, and public 12 13 right-of-way spaces, including sidewalks, with the intended 14 purpose of outdoor illumination must follow the following 15 outdoor lighting control requirements:

16 Permanent outdoor luminaires must (1)be fully shielded with an IES BUG rating and produce less than 1% of 17 18 its emitted light above 80 degrees from the downward vertical direction of nadir. Light should not be emitted 19 at an angle above 60 degrees from the downward vertical 20 21 direction of nadir.

(2) Luminaires must avoid light trespass by not exceeding an illuminance of one lux as measured at ground level both horizontally and vertically at the property boundary. SB3501 Engrossed - 6 - LRB103 36511 AWJ 66617 b

(3) 1 Luminaires must have a correlated color 2 temperature less than or equal to 2,700 Kelvin. In 3 residential areas, dark sky locations, or environmentally sensitive areas, such as State parks and 4 outdoor 5 recreation facilities, correlated color temperature should be no more than 2,200 Kelvin. 6

7 (4) Outdoor lighting must be minimized to no more than
8 25% above ANSI/IES standards or United States Department
9 of Transportation recommendations.

10 (5) Facade lighting must be minimized to no more than 11 25% above ANSI/IES standards, must project downward, and 12 must not violate the light trespass limits in paragraph 13 (2).

(6) When the installation or replacement of roadway 14 15 lighting is planned, the appropriate authority must 16 determine whether reflective roadway markings or 17 reflective signage is appropriate and safe for the situation in lieu of outdoor lighting. Reflectorized 18 19 roadway markings, lines, warning signs, informational 20 signs or other passive means must be used for roadway 21 lighting, except at intersections of 2 or more streets or 22 highways, unless it is determined that adequate safety 23 cannot be achieved by reflective means.

(7) No artificial lighting above one lux, as measured
 at ground level both horizontally and vertically, may
 trespass onto land or waterways designated or managed as

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habitat, reserve, natural area, open space, or wilderness.

2 Section 20. Exceptions. This Act does not apply if:

3 (1) the luminaires are on a structure or land that is 4 owned, supported, funded, leased, or managed by the State 5 in a county or municipality that, by ordinance or 6 resolution, has adopted provisions that are equal to or 7 more stringent than the provisions of this Act;

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(2) a federal law or regulation preempts this Act;

9 (3) a State agency determines a safety or security 10 need exists that cannot be addressed by any other method;

11 (4) fire, police, rescue, or repair personnel need
12 light for temporary emergencies or road repair work;

13 (5) it has been determined that a reasonable safety 14 and security interest exists at correctional or hospital 15 facilities that cannot be addressed by another method as 16 long as it complies with existing standards, 17 specifications, or policies;

18 (6) navigational lighting systems and other lighting
19 are necessary to comply with Federal Aviation
20 Administration airside operations or nautical safety;

(7) lamps greater than 2,700 Kelvin are used on active sports grounds or show grounds, but only for the duration of a practice, match, or event. Lamps emitting greater than 2,700 Kelvin under this paragraph must be positioned, angled, or shielded to prevent direct glare and light SB3501 Engrossed - 8 - LRB103 36511 AWJ 66617 b

trespass onto neighboring property or properties, and the positioning, angling, or shielding must limit upward light emission to only the amount necessary to light the sporting or grounds activity;

5 (8) flagpoles installed after the effective date of 6 this Act are lit by means of a downward-facing lamp and 7 using a lamp of 2,700 Kelvin or lower;

8 (9) flagpoles installed on or before the effective 9 date of this Act are upward-lit by partially shielded or 10 unshielded luminaires using a lamp of 2,200 Kelvin or 11 lower to minimize the impact of glare, light trespass, and 12 sky glow and are converted to conform to requirements upon 13 retrofitting;

(10) the luminaries are existing decorative and ornamental lighting that serve historical purposes, but replacement luminaries for the existing decorative and ornamental lighting must meet the standards of this Act; or

19 (11) the luminaries are temporary seasonal holiday 20 lighting lasting no longer than 45 days surrounding the 21 holiday season.

22 Section 25. Other laws. If this Act conflicts with any 23 other federal law, State law, or local ordinance controlling 24 lighting, outdoor luminaries, signage, outdoor advertising, 25 displays, or devices that is more stringent than the Act, then SB3501 Engrossed - 9 - LRB103 36511 AWJ 66617 b

1 the federal law, State law, or local ordinance controls to the 2 extent it is more stringent than the Act.

3 Section 99. Effective date. This Act takes effect January4 1, 2025.