

**HOUSE . . . . . No. 3494**

**The Commonwealth of Massachusetts**

PRESENTED BY:

***Sean Garballey and Simon Cataldo***

*To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:*

The undersigned legislators and/or citizens respectfully petition for the adoption of the accompanying bill:

An Act to improve outdoor lighting, conserve energy, and increase dark-sky visibility.

PETITION OF:

NAME:	DISTRICT/ADDRESS:	DATE ADDED:
<i>Sean Garballey</i>	<i>23rd Middlesex</i>	<i>1/16/2025</i>
<i>Simon Cataldo</i>	<i>14th Middlesex</i>	<i>1/16/2025</i>
<i>Natalie M. Blais</i>	<i>1st Franklin</i>	<i>1/27/2025</i>
<i>James B. Eldridge</i>	<i>Middlesex and Worcester</i>	<i>2/10/2025</i>
<i>Bruce E. Tarr</i>	<i>First Essex and Middlesex</i>	<i>2/26/2025</i>
<i>Margaret R. Scarsdale</i>	<i>1st Middlesex</i>	<i>3/17/2025</i>
<i>Mike Connolly</i>	<i>26th Middlesex</i>	<i>4/4/2025</i>
<i>Edward J. Kennedy</i>	<i>First Middlesex</i>	<i>4/17/2025</i>
<i>Christine P. Barber</i>	<i>34th Middlesex</i>	<i>4/28/2025</i>
<i>Danillo A. Sena</i>	<i>37th Middlesex</i>	<i>6/12/2025</i>
<i>Joseph D. McKenna</i>	<i>18th Worcester</i>	<i>6/26/2025</i>
<i>James K. Hawkins</i>	<i>2nd Bristol</i>	<i>12/1/2025</i>

**HOUSE . . . . . No. 3494**

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By Representatives Garballey of Arlington and Cataldo of Concord, a petition (accompanied by bill, House, No. 3494) of Sean Garballey, Simon Cataldo and others relative to improving outdoor lighting and increasing dark-sky visibility. Telecommunications, Utilities and Energy.

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**The Commonwealth of Massachusetts**

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**In the One Hundred and Ninety-Fourth General Court  
(2025-2026)**  
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An Act to improve outdoor lighting, conserve energy, and increase dark-sky visibility.

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:*

1 SECTION 1. Chapter 85 of the General Laws is hereby amended by adding the following  
2 section:

3 Section 38. (a) As used in this section, the following words shall have the following  
4 meanings unless the context clearly requires otherwise:

5 “Correlated color temperature” or “CCT”, the apparent hue of the light emitted by a  
6 fixture, expressed in kelvin (K).

7 “Façade lighting”, illumination of exterior surfaces of buildings for the enhancement of  
8 their nighttime appearance, achieved by shining light onto building surfaces, or by internal or  
9 external illumination of translucent building surfaces, or with fixtures solely for decorative  
10 function.

11           “Fixture”, a complete lighting unit, including a light source together with the parts  
12 designed to distribute the light, to position and protect the light source and connect the light  
13 source to the power supply.

14           “Fully shielded fixture”, a fixture that in its mounted position has an upright value of U0  
15 as defined by the standards of the Illuminating Engineering Society or that allows no direct light  
16 from the fixture above a horizontal plane through the fixture's lowest light-emitting part, in its  
17 mounted position.

18           “Glare”, light emitted by a fixture that causes visual discomfort or reduced visibility.

19           “Illuminance”, the luminous power incident per unit area of a surface.

20           “Light trespass”, light that falls beyond the property it is intended to illuminate.

21           “Lumen”, a standard unit of measurement of the quantity of light emitted from a source  
22 of light.

23           “Municipal funds”, bond revenues or money appropriated or allocated by the governing  
24 body of a town or city within the commonwealth.

25           “Ornamental lighting”, a lighting fixture that has a historical or decorative appearance  
26 and that serves a decorative function in addition to serving to light a roadway, parking lot,  
27 walkway, plaza, landscaping, or other area.

28           “Parking-lot lighting”, a permanent outdoor fixture specifically intended to illuminate an  
29 uncovered vehicle parking area.

30 “Permanent outdoor fixture”, a fixture for use in an exterior environment installed with  
31 mounting not intended for relocation.

32 “Roadway lighting”, a permanent outdoor fixture specifically intended to illuminate a  
33 public roadway.

34 “Sky glow”, scattered light in the atmosphere that is caused by light directed upward or  
35 sideways from fixtures, reducing an individual’s ability to view the natural night sky.

36 “State funds”, bond revenues or money appropriated or allocated by the general court.

37 “Uplight,” direct light emitted above a horizontal plane through the fixture’s lowest light-  
38 emitting part in its mounted position.

39 (b) Not later than January 1, 2026, the Department of Energy Resources, in consultation  
40 with the Massachusetts Department of Transportation and the Executive Office of Public Safety  
41 and Security, shall promulgate regulations with the intent of reducing energy waste and  
42 minimizing light pollution to the greatest extent possible and therefore to ensure that state or  
43 municipal funds are not used to install, to cause to be installed, or to operate a new permanent  
44 outdoor fixture, unless the following conditions are met:

45 (i) Fixtures used for roadway lighting or parking-lot lighting, whether mounted to poles,  
46 buildings or other structures, shall be fully shielded unless they are ornamental lighting fixtures,  
47 or are fixtures used to light tunnels or roadway underpasses;

48 (ii) Ornamental lighting fixtures shall comply with a limit on lumens of uplight  
49 established in the regulations;

50 (iii) Fixtures used for roadway lighting shall not be more numerous than is necessary for  
51 adequate vehicular and pedestrian safety, as determined by the regulations and given due  
52 consideration to the current lighting-needs criteria published by the Federal Highway  
53 Administration and the Illuminating Engineering Society;

54 (iv) Building-mounted fixtures shall be fully shielded unless they are façade lighting  
55 fixtures;

56 (v) Façade lighting fixtures shall be selected and installed to direct the light onto the  
57 intended target, and shall be shielded, so that glare, sky glow, and light trespass are minimized;

58 (vi) Fixtures used to light historic structures, flags, monuments, statuary and works of art  
59 shall be selected and installed to direct the light onto the intended target, and shall be shielded, so  
60 that glare, sky glow, and light trespass are minimized;

61 (vii) Fixtures used to light athletic playing areas shall be selected and installed so as to  
62 minimize glare, light trespass and sky glow outside the athletic playing area;

63 (viii) Fixtures installed for any purpose shall have a correlated color temperature that is  
64 not greater than a limit established in the regulations; provided, that the limit shall not exceed  
65 3000 K; and provided further, that said regulations shall include exemptions from the limit where  
66 a public safety need is demonstrated, where the fixtures are used exclusively for the decorative  
67 illumination through color of certain building façade or landscape features, or where the fixtures  
68 are used to illuminate athletic playing areas;

69 (ix) Lighting installed for any purpose shall provide maintained illuminance at levels that  
70 are no greater than those required for the intended purpose, as established in the regulations and

71 given due consideration to lighting industry standards and practices, unless a demonstrated and  
72 verified need exists for higher levels to ensure safety or security; provided, that if a municipal or  
73 county ordinance or regulation specifies lower illuminance levels, the illuminance level required  
74 for the intended purpose by the municipal or county ordinance or regulation shall be used.

75 (c) This section shall not apply: (i) if it is preempted by federal law; (ii) if the outdoor  
76 lighting fixture is used temporarily for emergency, repair, construction or similar activities; (iii)  
77 to navigational and other lighting systems necessary for aviation and nautical safety; (iv) if a  
78 compelling and bona fide safety or security need exists that cannot be addressed by another  
79 reasonable method; (v) to the replacement of a previously installed permanent outdoor fixture  
80 that is destroyed, damaged or inoperative, has experienced electrical failure due to failed  
81 components, or requires standard maintenance; (vi) to festoon lighting; as defined in the NFPA  
82 70 National Electrical Code; or (vii) to fixtures installed under any specific exemptions as  
83 codified in the regulations established under Section 38 (b).

84 SECTION 2. The Massachusetts Department of Transportation shall review and issue a  
85 report on existing roadway lighting and lighting operational costs. The report shall include a  
86 review of standards and other criteria for roadway lighting and an analysis of lighting operational  
87 costs; a review of roadway lighting's impact on human health, human safety, and environmental  
88 impact; actions taken by the department to comply with current standards; procedures and  
89 accepted best practices relative to roadway lighting; and recommendations for reducing lighting  
90 operational costs through the replacement of existing high-wattage, unshielded fixtures with  
91 lower-wattage, fully shielded fixtures and the replacement of unnecessary roadway lighting with  
92 the installation of passive safety measures. The department shall issue its report to the

93 department of energy resources and the clerks of senate and the house of representatives not later  
94 than January 1, 2026.

95 SECTION 3. Not later than January 1, 2026, the Department of Public Utilities shall,  
96 subject to its ratemaking authority, develop a rate for unmetered roadway or parking-lot lighting  
97 fixtures utilizing less than 25 watts of electricity.