

# **Bloomington Commission on Sustainability and Resilience & Environmental Commission**

Special Joint Meeting

Tuesday, September 15, 2026, 6:00pm

Council Chambers, City Hall, 401 N Morton St, Bloomington, IN 47404

[This meeting may also be accessed by Zoom<sup>1</sup>](#)

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- 1. Agenda**
- 2. Meeting Procedures**
- 3. Memo from Resolution author Zach Ammerman**
- 4. BCOSR Resolution 2026-06 / EC Resolution 2026-01**
- 5. BCOSR Comment Matrix**
- 6. Amendment 1**
- 7. Letters of Support from the Public (11 total)**

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<sup>1</sup> <https://bloomington.zoom.us/j/86563917258?pwd=mY66adzmojvPi9alb8JXSR5pe1LL3A.1>

Meeting ID: 865-6391-7258, Passcode: 867774

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Tuesday, September 15, 2026, 6:00pm

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## **AGENDA**

- 1. Call to Order**
- 2. Roll Call and Quorum Determination**
  - a. BCOSR
  - b. EC
- 3. Approval of the Agenda**
- 4. Opening Remarks from Chairs**
  - a. BCOSR Chair, Justin Vasel
  - b. EC Chair, Carrie Albright
- 5. Opening Remarks from Resolution Authors**
  - a. BCOSR Lead Author, Zach Ammerman
  - b. EC Lead Author, Matt Caldie
- 6. Public Comment**

20 minutes maximum, 2 minutes per person
- 7. BCOSR Resolution 2026-06 / EC Resolution 2026-01**
  - a. Action Item: Adoption of resolution by each Commission
- 8. Closing Remarks**
- 9. Adjournment**

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### **BCOSR Commission Members & Terms**

Tara Dunderdale, appointed by Common Council, February 1, 2025 through January 31, 2027  
Justin Vassel, appointed by Common Council, February 1, 2025 through January 31, 2027  
Rebecca Payne, appointed by Common Council, February 1, 2026 through January 31, 2028  
Christopher Miles, appointed by Common Council, February 1, 2026 through January 31, 2028  
Zach Ammerman, appointed by Common Council, February 1, 2026 through January 31, 2028  
Dave Rollo, appointed by Common Council on January 10, 2024  
Therese Dorau, appointed by IU Office of Sustainability on September 9, 2026  
Alex Jorck, appointed by the Mayor, February 1, 2026 through January 31, 2028  
Maria Aarstad, appointed by the Mayor, February 1, 2026 through January 31, 2028  
Diana Ogradowski, appointed by the Mayor, February 1, 2025 through January 31, 2027  
Ross Carlson, appointed by Monroe County Commissioners on November 24, 2025

### **EC Commission Members & Terms**

Justin Meschter, appointed by Common Council, February 1, 2026 through January 31, 2028  
Adam Martinez, appointed by Common Council, February 1, 2025 through January 31, 2027  
Karl Gaisser, appointed by Common Council, February 1, 2025 through January 31, 2027  
Mitchell Owens, appointed by Common Council, February 1, 2026 through January 31, 2028  
Carrie Albright, appointed by the Mayor, February 1, 2026 through January 31, 2028  
Heidi Brown, appointed by the Mayor, February 1, 2025 through January 31, 2027  
Matt Caldie, appointed by the Mayor, February 1, 2025 through January 31, 2027

**PROCEDURES FOR A JOINT MEETING *of the***  
**BLOOMINGTON COMMISSION ON SUSTAINABILITY AND RESILIENCE**  
***and the***  
**ENVIRONMENTAL COMMISSION**

These procedures for a joint meeting of BCOSR and EC are intended to facilitate orderly proceedings while respecting Open Door Law (ODL) requirements.

When it comes to ODL compliance, establishing quorum, and final actions, each commission is treated individually rather than as a joint body, as though two independent meetings were occurring at the same time and location.

Other parliamentary actions, such as motions, are performed as a joint body.

*Scope*

1. The scope of the joint meeting is limited to the topic of the resolution.

*ODL Compliance*

2. The meeting must be properly noticed by both commissions (IC 5-14-1.5-5).
3. Memoranda must be taken either by a member of staff or by a designated secretary of one of the commissions (IC 5-14-1.5-4).
4. Each commission must have at least 50% of their members present in person and comply with the other requirements for electronic meetings (IC 5-14-1.5-3.5).

*Quorum*

5. Each commission must maintain their own quorum independently as prescribed by their own bylaws or by BMC § 2.02.050(7).
6. If either commission loses quorum during the meeting, the meeting will recess until both quorums are reestablished.

*Chairing*

7. The chairs of each commission will serve as co-chairs of the joint body.

*Motions and Votes*

8. Motions and seconds can be made by any member of the joint body.
9. Votes for routine parliamentary actions are conducted by the joint body as a whole.
10. Roll call votes for final action (e.g., amendments, adoption) must be conducted by each commission independently.

*Agenda and Minutes*

11. An agenda will be drafted by the co-chairs and circulated to both commissions ahead of the meeting.
12. Each commission may choose to take their own minutes for approval at one of their future meetings.

# BCOSR Resolution 2026-06 Introduction Packet

**To:** All members of the Bloomington Commission on Sustainability and Resilience

**From:** Zach Ammerman, Vice Chair

**Date:** XXXXXX

**Subject:** Introduction and Details on BCOSR 2026-06 / EC 2026-01 Minimizing Light Pollution and Attaining Dark Sky Certification for Bloomington

## Table of Contents

1. Introduction to Resolution 2026-06
  2. In-Context Code Changes Proposed by the Resolution
- 

## Part 1 – Introduction to Resolution 2026-06

I've introduced Resolution 2026-06, which recommends to the Common Council a slew of changes aimed at reducing light pollution and positioning the city to pursue Dark Sky Community status from DarkSky International. Communities who have received this designation are those that have adopted recommended outdoor lighting policies and demonstrated a long-term commitment to reducing light pollution, allowing their residents to better appreciate the majesty of the unobscured night sky. If achieved, Bloomington would become among the largest cities in the United States to achieve it, only the second in Indiana (tiny Beverly Shores is the other), and one of only a handful in the Midwest. While certainly an ambitious goal, I believe it is attainable, and analog cities like Flagstaff, Arizona, a similarly sized college town, have shown that it is possible. And even if we don't quite get over the finish line, this is an example of a rare area where even moderate or incremental reductions in light pollution would have immensely positive value both for humans and for wildlife.

There is extensive scientific evidence of harm to wildlife caused by nighttime light pollution. [A widely cited metastudy](#) in *Biological Reviews* found that even relatively low levels of nighttime light pollution has significant impacts on wildlife, with artificial lighting negatively impacting organisms from the ecosystem down the cellular level. Indiana University researchers at the [Ketterson Lab have been studying light pollution](#)'s impact on birds, and found disruptions to seasonal reproductive timing and parasitic infection cycles, in addition to increased bird strikes on buildings.

For human health, the [American Medical Association's 2016 report](#), recommends outdoor nighttime lighting not exceed 3000K based on evidence for disruption to melatonin and sleep cycles in humans, and other organizations have found a carcinogenic effect to too much exposure to harsh light at night. These and the studies in the preceding paragraph are just a few small samples of fairly extensive literature on this subject. See the suggested reading list at the end of this memorandum for more.

The good news is that Bloomington has already made some progress on the path leading to Dark Sky Community status. Our UDO already requires full-cutoff shielding, sets light trespass limits at property lines, caps light output near residential areas, and imposes light curfews for some categories. Newer private developments appear to be following these requirements, although many if not most of the city's own newer streetlights leased from Duke Energy do not appear to be in conformity with these requirements, and older buildings are under no obligation to comply unless they undergo significant renovation.

I've identified several gaps that remain to get us over the line, including the following main change (among others):

1. Color temperature standards,
2. An amortization schedule for non-compliant fixtures,
3. Restrictions on exterior uplighting,
4. A strong warrant requirement for new public lighting,
5. An extension of the light curfew to all mixed-use and non-residential categories, and a change to 10 pm for all those that currently have an 11 pm curfew,
6. Stronger restrictions on illuminated signage, and
7. Strengthening rules on light trespass.

To better the chances of its adoption by the council, I've proposed explicit code changes that would fill these gaps and specific places where to insert the language. **To make it easier on you, I've attached an updated version of the relevant section of the UDO that clearly highlights the changes and additions proposed by the resolution.**

Part of the resolution calls for conducting an inventory of all streetlights and replacing those with a color temperature lower than 3000K (Kelvin). At first glance, that would appear to be a high-cost item that might doom this resolution's chances of being adopted as city policy. However, it is important to note that the city leases about 95% of its streetlight fleet of approximately 3,400 streetlights, and recent service agreements (starting with agreements last year) for their replacement show that the city is already regularly replacing them with 3000K fixtures at no apparent cost premium over non-compliant options. Bringing the rest of the stock into compliance can thus be accomplished through the city's usual operational replacement cycle, theoretically requiring no capital expenses. That being said, special attention will need to be paid to full-cutoff shielding, which does not appear to be strictly enforced with newer Duke Energy streetlights. A full inventory of the streetlights will allow the city to determine the actual scale of the issue and better estimate costs. A public records request to the city revealed that there is no database of public streetlights' CCT or last replacement date; this inventory would fill that gap in the city's data.

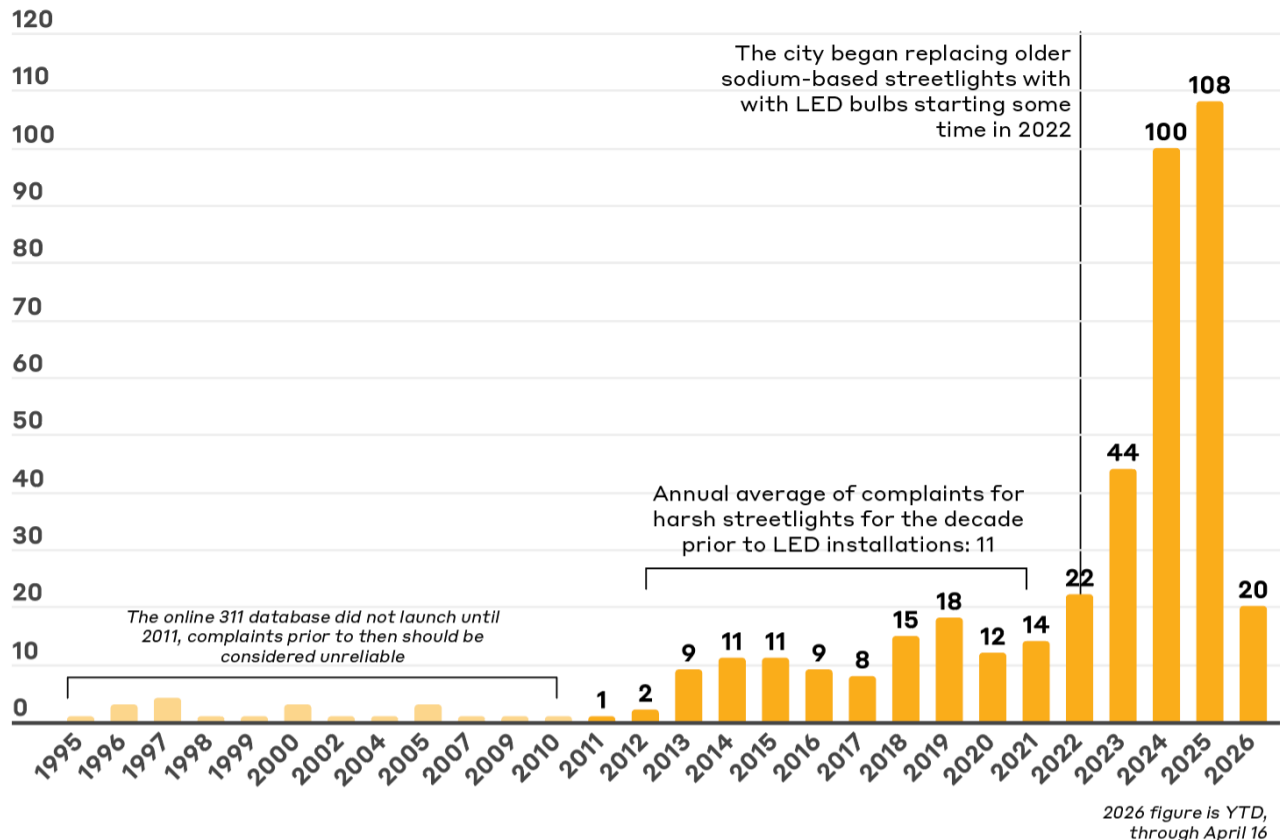
Non-compliant street fixtures (those with color temperatures above 3000K and insufficient shielding), in addition to being harmful to wildlife and human health, are highly unpopular. Bloomington's 311 complaint data backs this up. Sometime in 2022, the city started replacing its older low-CCT sodium light fixtures with new, energy-efficient high-CCT LED lamps. Public contracts show that the majority of these until the past year or so were in the 4000K range or higher, which emit quite harsh, bright whitish-blue light, something that the American Medical Association says is harmful to human health. In the decade prior to this, the city averaged only eleven (11) 311 complaints annually referencing harsh or glaring streetlights. Starting in 2023 and every year thereafter, the number shot up and has been over

100 for the past two years. Replacing the harsh 4000K lights over their lifespan would thus improve resident satisfaction while having a positive impact on wildlife and our view of the night sky. It should be noted that newer LEDs are fully capable of having a lower CCT while maintaining the energy efficiency of the harsher lights of the first generation of LED lights installed.



## 311 Complaints for Harsh, Bright, or Glaring Streetlights

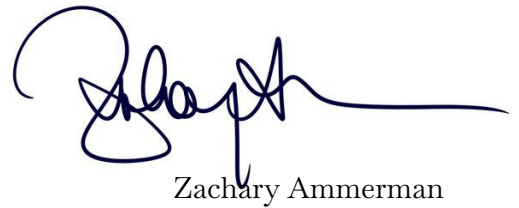
RESULTS OF A PUBLIC RECORD REQUEST MADE IN APRIL 2026



The resolution also recommends several actions outside the UDO: the city-wide lighting inventory mentioned above, a sky quality measurement program (possibly in partnership with IU's Astronomy Department, whose chair expressed interest when I approached her about it), public education and outreach, and coordination with Monroe County and Indiana University on compatible lighting standards. Together, these steps would meaningfully reduce light pollution and improve nighttime quality of life regardless of whether full certification is ultimately achieved.

As I note in the preamble, unencumbered views of the heavens are something common across all human cultures since time immemorial. Obscuring the sky is only a relatively recent wound our civilization has inflicted on the planet, and one that we as a society can reverse through political will. I think we should try. This resolution would position us to be able to do so in Bloomington. I look forward to discussing this with you further during our upcoming meeting, and welcome any questions or comments in the meantime.

Respectfully,



Zachary Ammerman

### Recommended for Further Reading:

- Gaston, K.J., Bennie, J., Davies, T.W., and Hopkins, J. (2013). "The ecological impacts of nighttime light pollution: a mechanistic appraisal." *Biological Reviews*, 88(4), 912–927.  
<https://onlinelibrary.wiley.com/doi/10.1111/brv.12036>
- Boyes, D.H., Evans, D.M., Fox, R., Parsons, M.S., and Pocock, M.J.O. (2021). "Street lighting has detrimental impacts on local insect populations." *Science Advances*, 7(35).  
<https://www.science.org/doi/10.1126/sciadv.abi8322>
- Singh, D., et al. "Impact of light pollution on wildlife." Indiana University Environmental Resilience Institute / Ketterson Lab.  
<https://eri.iu.edu/research/projects/impact-of-light-pollution-on-wildlife.html>
- National Park Service. (2025). "Synthesis of Studies on the Effects of Artificial Light at Night."  
<https://www.nps.gov/articles/effectsoflight.htm>
- Garcia-Saenz, A., et al. (2021). "Exposure to artificial light at night and risk of cancer: where do we go from here?" *British Journal of Cancer*, 124, 1377–1379.  
<https://www.nature.com/articles/s41416-020-01231-7>
- American Medical Association. (2016). "Human and Environmental Effects of Light Emitting Diode (LED) Community Lighting." Report of the Council on Science and Public Health, Report 2-A-16.  
[https://policysearch.ama-assn.org/councilreports/downloadreport?uri=/councilreports/a16\\_csaph2.pdf](https://policysearch.ama-assn.org/councilreports/downloadreport?uri=/councilreports/a16_csaph2.pdf)

## Part 2 – In-Context Code Changes Proposed by Resolution 2026-06

This shows the current relevant chapter of the UDO with proposed changes highlighted.

additions deletions

### Section 20.04.090 – Outdoor Lighting

#### (a) Purpose

The lighting standards are intended to encourage lighting practices and systems that conserve energy and resources; minimize light pollution, glare, and light trespass while maintaining nighttime safety, security, and enjoyment of property; and curtail the degradation of the nighttime visual environment; and to minimize disturbance to sensitive plants and animals.

#### (b) Applicability

Compliance with this Section 20.04.090 shall be required pursuant to Section 20.04.010 (Applicability) and the specific applicability criteria established below:

##### (1) Change in Use

If there is any change in use of the property, the provisions of this Section 20.04.090 shall apply when the new use commences. Changes in use within multi-tenant centers shall not require the individual tenant or the entire center to comply with the provisions of this section.

##### (2) Modification, Replacement, or Addition of Outdoor Lighting

Modification, replacement or addition of outdoor lighting fixtures constituting 25 percent or more of the permitted lumens for the parcel, no matter the actual amount of lighting already on a site, shall trigger compliance for the entire site.

##### (3) Exemptions

(A) Temporary Carnivals and Festivals – Lighting for temporary festivals and carnivals are exempt but shall be turned off within 30 minutes of the last event.

(B) Emergency Lighting – Emergency lighting, used by police, fire fighting, or medical personnel, or at their direction, is exempt from all requirements of this Section 20.04.090.

(C) Traffic Control Lighting – Traffic control lighting is exempt from the provisions of this Section 20.04.090.

(D) Lighted Flags – Up to three flagpoles and flags are exempt from the provisions of this Section 20.04.090. All other outdoor lighted flags shall conform to the provisions of this Section.

(E) Holiday Lighting — Holiday lighting and seasonal decorations using typical unshielded low-intensity incandescent lamps are exempt from the provisions of this section.

(F) Low-intensity Lighting — (i) No shielding is required for a light fixture with a bulb rated at 260 lumens or less. (ii) Full shielding is not required for a light fixture with a bulb rated at more than 260 lumens and less than 1,000 lumens when the bulbs are installed inside frosted glass or other translucent covers and shielded on top. (iii) The total lumens of bulbs specified in subsections (i) and (ii) above, when not motion detector activated, shall not exceed 2,000 lumens per building, or 1,000 lumens per exterior entryway, whichever is less.

(G) Swimming Pool and Fountain Lighting — Underwater lighting used for the illumination of swimming pools and fountains is exempt from the lamp type and shielding standards, though it shall conform to all other provisions of this section.

#### **(4) Amortization of Non-Conforming Lighting**

**All outdoor lighting fixtures existing on the effective date of this subsection, both publicly and privately owned, that do not conform to the requirements of Section 20.04.090 shall be brought into compliance within ten (10) years of the effective date of this subsection.**

### **(c) General Standards**

#### **(1) Conformance with Applicable Codes**

All outdoor illuminating devices shall be installed in conformance with the provisions of this UDO and all applicable building and electrical codes.

#### **(2) Initial Lumens**

For the purposes of this chapter "lumens" means "initial lumens." The acceptability and shielding restrictions applicable to a particular lamp are decided by its initial lumen output, not wattage; check manufacturer's specifications.

#### **(3) Prohibitions**

(A) Laser Source Light — The use of laser, strobe, and/or flashing source light or any similar high intensity light for outdoor advertising or entertainment is prohibited.

(B) Searchlights — The operation of searchlights is prohibited except when used by civil authorities for purposes of public safety.

(C) Towers — Tower lighting shall not be permitted unless required by the Federal Aviation Administration (FAA).

#### **(4) Light Trespass**

(A) All lighting fixtures shall be installed so that light trespass from any property line, ~~except a property line abutting a public street,~~ shall not exceed ~~one footcandle~~ **0.5 footcandles** at a point

one meter beyond the property line. Properties bordered by R1, R2, R3, R4, or RMH are allowed no more than ~~0.5~~ **0.3** footcandles at a point ~~one meter beyond the property line~~ **five meters beyond the property line adjacent to those districts or at the dwelling façade, whichever distance is closest,** adjacent to those districts.

(B) Properties bordered by R1, R2, R3, R4, or RMH are allowed no more than ~~0.5~~ **0.3** footcandles at a point ~~one meter beyond the property line~~ **five (5) meters beyond the property line adjacent to those districts or at the dwelling façade, whichever distance is closest,** adjacent to those districts.

(C) Measurements of light readings along any portion of a property line of the subject property shall be taken with a light meter facing the light source at a height of five feet, using any orientation of the light meter. The maximum reading shall be used.

**(D) A maximum light intrusion threshold of 0.1 footcandles shall be established at the boundary of any riparian buffer, wetland buffer, karst conservancy easement, or conservation easement established under Section 20.04.030, and to require photometric plans demonstrating compliance for development adjacent to such areas.**

## **(5) Glare**

All lighting fixtures shall be installed so as not to cause glare at or beyond the property line and shall not be aimed toward traffic.

### **(A) Shielding**

(i) All lighting fixtures, except motion detector-activated lighting, shall be fully shielded so that the lighting element is not visible to an observer at any property line, except as stated otherwise in this Section 20.04.090.

**(ii) Fully shielded shall mean that the fixture, as installed,**

- (a) emits no light at or above the horizontal plane, such that the light source is not visible from any point at or above the horizontal plane of the fixture;**
- (b) does not exceed a rating of U<sub>0</sub>, G<sub>1</sub>, and B<sub>2</sub> under the Illuminating Engineering Society's BUG classification system (TM-15) with a reduced maximum of U<sub>0</sub>, G<sub>0</sub>, B<sub>1</sub> for fixtures within 500 feet of any environmentally sensitive area protected under Section 20.04.030; and**
- (c) directs all emitted light within a maximum cone of seventy (70) degrees from the vertical axis of the fixture (i.e., no light emitted at angles greater than 70 degrees from nadir)."**

(iii) Unless otherwise specified, all lighting fixtures shall be full cutoff type as installed.

**(iii) A lighting fixture may beam light upward only if all upward light is reflected back down by a canopy, roof, or other such structure.**

(iv) Full shielding is not required for motion detector activated lighting of less than 1,800 lumens, provided the light cycles off no more than 10 minutes after coming on.

### **(B) Floodlights and Spotlights**

- (i) Floodlights and spotlights shall be fully shielded so that the light element is not visible to an observer on any property either zoned or used for residential purposes and is not visible to an observer on any public right-of-way.
- (ii) The centerline beam of a floodlight or spotlight shall be aimed no higher than 45 degrees above vertical; however, light fixtures that cast illumination over more than 90 degrees shall be aimed such that no light shall be cast above the horizontal.

### **(C) Prohibition of Exterior Uplighting**

**Exterior uplighting of buildings and architectural features is prohibited, with a narrow exception for structures designated as historic where the Historic Preservation Commission approves a lighting plan**

## **(6) Landscape Lighting**

- (A) When planting materials are lighted, high-pressure sodium lamps and low-intensity incandescent lamps shall not be used.
- (B) Lighting of any tree protection area or conservation easement, including but not limited to those required by Section 20.04.030 (Environment), is prohibited.

## **(7) Correlated Color Temperature**

**A maximum color temperature of 3000 Kelvin or lower for all new outdoor lighting installations shall be required and any replacement of existing outdoor lighting fixtures shall comply with the same correlated color temperature standards, with a reduced maximum of 2200 Kelvin or lower for fixtures within 500 feet of any environmentally sensitive area protected under Section 20.04.030.**

## **(8) Warrant for Publicly-Owned Lighting**

- (A) **General provisions. New publicly-owned outdoor lighting shall be installed only where a specific, site-specific, and documented safety, navigation, or functional need has been established. General assertions of improved safety or security, without reference to conditions at the specific location, shall not constitute a sufficient warrant.**
- (B) **Lighting Restrictions Near Environmentally Sensitive Areas. No new outdoor lighting, whether publicly or privately owned, shall be installed within 500 feet of any riparian buffer, wetland buffer, karst conservancy easement, or conservation easement established under Section 20.04.030, unless the installing authority or applicant demonstrates by clear and specific evidence that (i) a serious and immediate risk to public safety exists that cannot be mitigated through non-lighting alternatives such as reflective materials, signage, barriers, or**

path realignment; (ii) the proposed installation is the minimum fixture count, lowest lumen output, and narrowest distribution pattern sufficient to address the identified risk; and (iii) all fixtures comply with a maximum correlated color temperature of 2200 Kelvin, are fully shielded with no backlight component oriented toward the sensitive area, and are subject to adaptive controls or curfew. The burden of proof shall rest with the installing authority or applicant.

#### **(g) Publicly-Owned Lighting Controls**

All new installations of publicly-owned outdoor lighting, including streetlights, park path lighting, and lighting at public facilities, shall incorporate adaptive controls such as timers, motion sensors, or photocell-activated switches, or shall be subject to an established curfew consistent with the use. In the absence of an explicitly established curfew for a public use, a default cutoff time of no later than 10 pm or 30 minutes after normal authorized activities, whichever is later, shall be established.

#### **(d) Multifamily Residential Lighting (meets IDSC 1(C), 1(D))**

A parcel occupied by a multifamily dwelling shall not be illuminated by more than 6,000 lumens per primary structure, including a maximum of 2,000 lumens per building entryway of any combination of motion detector activated lighting and bulbs rated at no more than 1,000 lumens.

#### **(e) Mixed-Use and Nonresidential Lighting**

##### **(1) ~~Adjacent to Residential Districts~~ Maximum Light Output (AMENDED – extends cap to all zoning districts; meets IDSC 1(C), 1(D))**

Mixed-use and nonresidential uses ~~bordered by any R1, R2, R3, R4, or RMH zoning district~~ shall be allowed a total light output of not more than 40,000 lumens per acre. Provided, regardless of parcel size, the allowance shall be sufficient to provide a maximum of 2,500 lumens per entryway with motion detector activated lighting counted as one-half lumens.

##### **(2) Use-Specific Conditions**

###### **(A) Canopies, Pavilions, or Drive-Through Bays (meets IDSC 1(A), 1(D))**

(i) Illuminance — The canopy, pavilion, or drive-through bay shall be designed to achieve no greater than the minimal illuminance level of a service station pump island as recommended by the Illuminating Engineering Society of North America (IESNA RP-33: Lighting for Exterior Environments).

(ii) Shielding — All light fixtures mounted on or recessed into the lower surface of canopies, pavilions, or drive-through bays shall be full cutoff, fully shielded and use flat lenses. Such fixtures shall be recessed so the fixture does not extend below the lower horizontal surface of the canopy, pavilion, or drive-through bay.

**(iii) Curfew – Lighting shall be turned off no later than 10 p.m., or within 30 minutes after closing of the business if the business closes after 10 p.m.**

## **(B) Outdoor Recreational Facilities**

(i) Illuminance – All lighting installations shall be designed to achieve no greater than the minimal illuminance levels for the activity as recommended by the Illuminating Engineering Society of North America (IESNA RP-6: Sports and Recreational Area Lighting).

(ii) Light Trespass – All lighting fixtures shall be installed so that light trespass from any property line, except a property line abutting a public street, shall not exceed two footcandles at a point one meter beyond the property line.

(iii) Restriction – Field lighting for all outdoor recreational facilities shall be turned off **no later than 10 p.m., or within 30 minutes after the completion of the last event of the night if the event takes place after 10 p.m.** [amended from: “within 30 minutes after the completion of the last event of the night”]

## **(C) Parking Lots and Outdoor Display Lots or Areas**

(i) Illuminance – The parking lot shall be designed to achieve no greater than the minimal illuminance levels for the given land use as recommended by the Illuminating Engineering Society of North America (IESNA RP-33: Lighting for Exterior Environments). However, a parking lot shall also be designed to achieve a minimum illuminance level of one lux.

(ii) Curfew – Lighting for outdoor display lots and parking lots with more than 20 parking spaces shall be reduced by half no later than **10 p.m., or within 30 minutes after closing of the business if the business closes after 10 p.m.** [amended from: “11 p.m., or within 30 minutes after closing of the business, whichever is later”]

## **Related Amendment to Section 20.04.100 (Signs)**

### **(g)(5) Illuminated Sign Standards**

**Illuminated signs shall not exceed 100 nits (100 cd/m<sup>2</sup>) luminance between sunset and sunrise, measured under conditions of a full white display. Sign illumination shall be extinguished completely beginning one hour after sunset and remain off until one hour before sunrise. Individual illuminated signs shall not exceed 200 square feet (18.6 square meters) of luminous surface area.**

## **IDSC Requirements Met Outside the UDO**

IDSC 2(A) – City-owned lighting brought into compliance within 5 years: addressed through the inventory and conversion timeline in Resolution 2026-06

IDSC 2(B) – Municipal support through publications, funding, etc.: addressed through Resolution 2026-06 and ongoing city communications.

IDSC 4 – Community dark sky education events: addressed through Resolution 2026-06 committing to at least three public outreach events annually.

IDSC 6 – Sky brightness measurement program established and maintained: addressed through Resolution 2026-06.

IDSC 3, 5, 7 – Broad organizational support, demonstrated success in light pollution control, and entrance signage: application-stage and post-certification requirements not requiring code amendment.

BCOSR Passed X-Y-Z

EC Passed X-Y-Z

**3 Resolution Author**

4 Zach Ammerman (BCOSR)

5

**6 Resolution Co-Sponsors**

7 Alex Jorck (BCOSR)

8 Justin Vasel (BCOSR)

9 Matt Caldie (EC)

10 Adam Martinez (EC)

11 Karl Gaisser (EC)

**12 BCOSR RESOLUTION 2026-06 / EC RESOLUTION 2026-01****13 MINIMIZING LIGHT POLLUTION AND ATTAINING**  
**14 DARK SKY CERTIFICATION FOR BLOOMINGTON**

15 WHEREAS, gazing at the majesty of the stars is an ancient human birthright common to all cultures since time  
16 immemorial, a source of expansive awe and mystery, of myths and legends, of direction both  
17 spiritual and navigatory, of the humbling awareness of the vastness of the cosmos and the  
18 perspective of our small place in it, of connection to galaxies whose basic matter is our matter and  
19 of wonder at the question of what other beings may be looking at the same sky, of the knowledge  
20 that to look up is to look back across time and that some starlight reaching our eyes was emitted  
21 even before the birth of our species, of the passage of seasons and the marking of births, of  
22 humanity's deepest inquiries into the nature of the universe and of the quiet contemplation  
23 available to anyone who steps out and looks up; and

24 WHEREAS, light pollution causes profound ecological disruption, manipulating the rhythms of the natural, and  
25 contributing to increased insect mortality, bird disorientation, disrupted plant phenology, confused  
26 migration patterns, with documented harms to species such as the endangered Indiana bat and to  
27 declining firefly populations, as well as causing suppressed melatonin production in humans; and

28 WHEREAS, the presence in our city of Indiana University's Astronomy Department and the Kirkwood  
29 Observatory, as well as Bloomington's proximity to Hoosier National Forest, Morgan-Monroe and  
30 Yellowwood State Forests, Brown County, Spring Mill, and McCormick's Creek State Parks, and  
31 some of the darkest remaining skies in Indiana makes the city a natural candidate to anchor a  
32 regional dark sky corridor, and Dark Sky Community certification would distinguish Bloomington  
33 as a leader in a growing national movement while supporting astrotourism and the regional  
34 outdoor recreation economy; and

35 WHEREAS, light pollution is a manageable phenomenon that can be reduced by choice through political will  
36 and vision, and Bloomington is well-placed to attain certification as a Dark Sky community,  
37 having already made advancements that meet some of the existing criteria for such a designation;  
38 and

39 WHEREAS, the American Medical Association in 2016 adopted guidance (Report 2-A-16)<sup>1</sup> recommending that  
40 outdoor lighting use a correlated color temperature of no greater than 3000 Kelvin, finding that

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<sup>1</sup>Human and Environmental Effects of Light Emitting Diode (LED) Community Lighting, Report of the Council on  
41 Science and Public Health, American Medical Association:

42 [https://policysearch.ama-assn.org/councilreports/downloadreport?uri=/councilreports/a16\\_csaph2.pdf](https://policysearch.ama-assn.org/councilreports/downloadreport?uri=/councilreports/a16_csaph2.pdf)

43 high-CCT lighting is associated with adverse health effects including sleep disruption and  
44 melatonin suppression; and

45 WHEREAS, a 2026 study<sup>2</sup> found that artificial light at night significantly extends the duration of the pollen  
46 season and elevates allergen exposure, with light-polluted sites experiencing pollen seasons up to  
47 fifty days longer and nearly twice the proportion of days at severe allergy thresholds compared to  
48 sites with minimal artificial light; and

49 WHEREAS, the assumption that more lighting necessarily produces greater public safety is not supported by  
50 evidence; research<sup>3</sup> consistently finds that poorly designed lighting can reduce safety by producing  
51 glare<sup>4</sup> that impairs night vision and creating sharp shadows that conceal rather than reveal, and that  
52 the most rigorous studies on the relationship between lighting levels and crime find no consistent  
53 effect, while finding that lighting quality, direction, and appropriateness to context matter far more  
54 than light quantity; and

55 WHEREAS, the City does not currently maintain a comprehensive inventory of streetlights within  
56 Bloomington, and existing datasets held by the City and Duke Energy diverge dramatically in their  
57 totals, do not agree on which lights the City itself maintains, omit most city-maintained lights in  
58 parks, and do not include any information on lights on the Indiana University campus, all  
59 demonstrating the need for a full inventory of public lights; and

60 WHEREAS, the City directly maintains only a small fraction of the total streetlights within Bloomington, with  
61 the overwhelming majority leased from or maintained by Duke Energy; and

62 WHEREAS, based on responses to public record requests, the city does not currently possess an inventory of  
63 streetlights that contains information pertaining to the correlated color temperature or most recent  
64 date of replacement for lights maintained either by Duke or the city; and

65 WHEREAS, outdoor lighting accounts for a significant share of municipal energy consumption, and measures  
66 such as dimming, adaptive controls, curfews, and the removal of unwarranted fixtures directly  
67 reduce electricity use, lowering both costs to the community and greenhouse gas emissions  
68 associated with energy generation; and

69 WHEREAS, the City of Bloomington began a large-scale conversion of sodium vapor streetlights to LED by  
70 2023<sup>5</sup>, during which period uReport complaints from residents regarding bright, glaring, or  
71 otherwise intrusive lighting rose sharply from an average of 11 per year in the preceding decade to  
72 over one hundred per year, consistent with Duke Energy's standard Roadway LED product being  
73 specified at 4000 Kelvin through this period; and

74 WHEREAS, more recent Outdoor Lighting Service Agreements indicate that fixtures now being leased by the  
75 City are 3000 Kelvin and compliant with the recommended color temperature standard, such that  
76 bringing the remaining non-compliant fixtures into compliance through the natural replacement  
77 cycle represents primarily an ongoing operational cost rather than a significant capital expenditure;  
78 and

---

83 <sup>2</sup> Brandt Geist, Lin Meng, Daniel S W Katz, Huidong Li, Franz Hölker, Qian Xiao, Artificial light at night extends  
84 pollen season and elevates allergen exposure, PNAS Nexus, Volume 5, Issue 1, January 2026, pgaf405,  
85 <https://doi.org/10.1093/pnasnexus/pgaf405>

80 <sup>3</sup> Steinbach, R., Perkins, C., Tompson, L., Johnson, S., Armstrong, B., Green, J., Grundy, C., Wilkinson, P., &  
81 Edwards, P. (2015). "The effect of reduced street lighting on road casualties and crime in England and Wales:  
82 controlled interrupted time series analysis." Journal of Epidemiology and Community Health, 69(11), 1118–1124.  
83 DOI: [10.1136/jech-2015-206012](https://doi.org/10.1136/jech-2015-206012)

<sup>4</sup> <https://darksky.org/resources/what-is-light-pollution/effects/safety/>

79 <sup>5</sup> "Bloomington in the midst of transitioning to LED streetlamps," Indiana Public Media, June 2023  
<https://www.ipm.org/2023-06-28/bloomington-in-the-midst-of-transitioning-to-led-streetlamps>

85 WHEREAS, Bloomington's Unified Development Ordinance (UDO) at Section 20.04.090 already requires full  
86 cutoff shielding, establishes light trespass limits at property lines, caps total lumen output adjacent  
87 to residential districts, mandates curfews for parking lots and recreational facilities, and prohibits  
88 lighting of conservation easements, meeting some but not all of the criteria<sup>6</sup> established by  
89 DarkSky International for community designation; and

90 WHEREAS, certification of Bloomington as a Dark Sky Community would make it among the largest such  
91 communities in the United States and peer to cities such as Flagstaff, Arizona, a similarly sized  
92 college town; and

93 WHEREAS, obtaining Dark Sky Community status is an ambitious, attainable goal for Bloomington, and the  
94 substantive reforms required to pursue it would meaningfully reduce light pollution, protect  
95 ecological and human health, and improve nighttime quality of life regardless of whether full  
96 certification is ultimately achieved.

97 NOW THEREFORE, BE IT HEREBY RESOLVED BY THE BLOOMINGTON COMMISSION ON  
98 SUSTAINABILITY AND RESILIENCE AND THE BLOOMINGTON ENVIRONMENTAL COMMISSION,  
99 THAT

100 **SECTION 1. Recommendations.**

101 (1) **Unified Development Ordinance (UDO) Changes.** The following changes to the UDO are recommended  
102 to reduce light pollution and to advance Bloomington toward certification as a Dark Sky Community by  
103 DarkSky International:

- 104
- 105 (a) That the Common Council amend UDO § 20.04.090(b) by adding a new subsection (4), titled  
106 “Amortization of Non-Conforming Lighting,” to read: “All outdoor lighting fixtures existing on  
107 the effective date of this subsection, both publicly and privately owned, that do not conform to the  
108 requirements of UDO § 20.04.090 shall be brought into compliance within ten (10) years of the  
109 effective date of this subsection.” *This satisfies Dark Sky Community Requirement 1(H),*  
110
- 111 (b) That the Common Council amend UDO § 20.04.090(c)(4) to add a new subsection (d) as follows:  
112 “A maximum light intrusion threshold of 0.1 footcandles shall be established at the boundary of  
113 any riparian buffer, wetland buffer, karst conservancy easement, or conservation easement  
114 established under UDO § 20.04.030, and to require photometric plans demonstrating compliance  
115 for development adjacent to such areas.” *This exceeds Dark Sky Community requirements.*  
116
- 117 (c) That the Common Council amend UDO § 20.04.090(c)(5) by adding a new subsection (C), titled  
118 “Prohibition of Exterior Uplighting,” to read: “Exterior uplighting of buildings and architectural  
119 features is prohibited, with a narrow exception for structures designated as historic where the  
120 Historic Preservation Commission approves a lighting plan” and to repeal UDO §  
121 20.04.090(c)(5)(A)(iii) which allows such uplighting when under canopy structures. *This exceeds*  
122 *Dark Sky Community requirements.*  
123
- 124 (d) That the Common Council amend UDO § 20.04.090(c)(5)(A) to add a definition of “fully  
125 shielded” as follows after (i): “(ii) Fully shielded shall mean that the fixture, as installed, (a) emits  
126 no light at or above the horizontal plane, such that the light source is not visible from any point at  
127 or above the horizontal plane of the fixture; (b) does not exceed a rating of U0, G1, and B2 under  
128 the Illuminating Engineering Society's BUG classification system<sup>7</sup> (TM-15) with a reduced  
129 maximum of U0, G0, B1 for fixtures within 500 feet of any environmentally sensitive area  
130 protected under § 20.04.030; and (c) directs all emitted light within a maximum cone of seventy  
131 (70) degrees from the vertical axis of the fixture (i.e., no light emitted at angles greater than 70  
132 degrees from nadir),” and deleting § 20.04.090(c)(5)(A)(iii). *This clarifies and significantly*

<sup>6</sup> See full list of criteria here: <https://darksky.org/app/uploads/2018/07/IDSC-Guidelines-Jun2018.pdf>

<sup>7</sup> [http://www.escolighting.com/PDFfiles/BUG\\_rating.pdf](http://www.escolighting.com/PDFfiles/BUG_rating.pdf)

strengthens the existing full cutoff standard, exceeding Dark Sky Community Requirement 1(A).

- (e) That the Common Council amend UDO § 20.04.090(c) of the UDO to add a new subsection (7) as follows: “A maximum color temperature of 3000 Kelvin or lower for all new outdoor lighting installations shall be required and any replacement of existing outdoor lighting fixtures shall comply with the same correlated color temperature standards, with a reduced maximum of 2200 Kelvin or lower for fixtures within 500 feet of any environmentally sensitive area protected under Section 20.04.030.” *This satisfies Dark Sky Community Requirement 1(B),*
- (f) That the Common Council amend UDO § 20.04.090(c) by adding a new subsection (8), titled “Warrant for Publicly-Owned Lighting,” to read: “(A) General Provisions. New publicly-owned outdoor lighting shall be installed only where a specific, site-specific, and documented safety, navigation, or functional need has been established. General assertions of improved safety or security, without reference to conditions at the specific location, shall not constitute a sufficient warrant.” *This satisfies Dark Sky Community Requirement 1(E)(i).*
- (g) That the Common Council add a new subpart (B) to UDO § 20.04.090(c)(8), titled “Lighting Restrictions Near Environmentally Sensitive Areas,” to read: “No new outdoor lighting, whether publicly or privately owned, shall be installed within 500 feet of any riparian buffer, wetland buffer, karst conservancy easement, or conservation easement established under Section 20.04.030, unless the installing authority or applicant demonstrates by clear and specific evidence that (i) a serious and immediate risk to public safety exists that cannot be mitigated through non-lighting alternatives such as reflective materials, signage, barriers, or path realignment; (ii) the proposed installation is the minimum fixture count, lowest lumen output, and narrowest distribution pattern sufficient to address the identified risk; and (iii) all fixtures comply with a maximum correlated color temperature of 2200 Kelvin, are fully shielded with no backlight component oriented toward the sensitive area, and are subject to adaptive controls or curfew. The burden of proof shall rest with the installing authority or applicant.” *This exceeds Dark Sky Community requirements.*
- (h) That the Common Council amend UDO § 20.04.090(c) by adding a new subsection (9), titled “Publicly-Owned Lighting Controls,” to read: “All new installations of publicly-owned outdoor lighting, including streetlights, park path lighting, and lighting at public facilities, shall incorporate adaptive controls such as timers, motion sensors, or photocell-activated switches, or shall be subject to an established curfew consistent with the use. In the absence of an explicitly established curfew for a public use, a default cutoff time of no later than 10 pm or 30 minutes after normal authorized activities, whichever is later, shall be established.” *This satisfies Dark Sky Community Requirement 1(E)(ii).*
- (i) That the Common Council amend UDO § 20.04.090(e)(1) by striking the language limiting the lumens-per-acre cap to parcels “bordered by any R1, R2, R3, R4, or RMH zoning district” so that the 40,000 lumens per acre cap applies to all mixed-use and nonresidential properties, and retitling the subsection from “Adjacent to Residential Districts” to “Maximum Light Output.” *This satisfies Dark Sky Community Requirement 1(C) and 1(D),*
- (j) That the Common Council amend UDO § 20.04.090(e)(2)(A), (B), and (C) to move the curfew time up to 10 p.m. for all categories that currently have an 11 p.m. curfew; and to establish a 10 p.m. curfew for all other categories that currently have no hard curfew. All categories shall allow lighting to stay illuminated after 10 p.m. until up to 30 minutes past the cessation of normal authorized activities if those activities take place after 10 p.m. *This satisfies Dark Sky Community Requirement 1(G) for outdoor recreational facilities and exceeds Dark Sky requirements for parking lots, canopies, and drive-through bays.*
- (k) That the Common Council amend UDO § 20.04.100(g) by adding a new subsection (5), titled “Illuminated Sign Standards,” to read: “Illuminated signs shall not exceed 100 nits (100 cd/m<sup>2</sup>) luminance between sunset and sunrise, measured under conditions of a full white display. Sign illumination shall be extinguished completely beginning one hour after sunset and remain off until one hour before sunrise. Individual illuminated signs shall not exceed 200 square feet (18.6 square

meters) of luminous surface area.” *This satisfies Dark Sky Community Requirement 1(F)(i), 1(F)(ii), and 1(F)(iii),*

- (l) That the Common Council amend UDO § 20.04.090(c)(4)(a) to read “All lighting fixtures shall be installed so that light trespass from any property line shall not exceed 0.5 footcandles at a point one (1) meter beyond the property line. Properties bordered by R1, R2, R3, R4, or RMH are allowed no more than 0.3 footcandles at a point five meters beyond the property line adjacent to those districts or at the dwelling façade, whichever distance is closest.”

- (m) That the Common Council amend UDO § 20.04.090(c)(4)(b) to read “Properties bordered by R1, R2, R3, R4, or RMH are allowed no more than 0.3 footcandles at a point five (5) meters beyond the property line adjacent to those districts or at the dwelling façade, whichever distance is closest.”

(2) **General Recommendations.** The following policy actions are further recommended to bring Bloomington into compliance for Dark Sky Community recognition and reduce light pollution in Bloomington:

- (a) That City of Bloomington Utilities conduct an inventory of all city-owned and utility-leased streetlights and public facility lighting, assessing each fixture for correlated color temperature, shielding type, full cutoff compliance, and lumen output. The inventory shall specifically identify all fixtures that do not meet the full cutoff standard defined in UDO § 20.04.090(c)(5)(A), and shall include an assessment of whether non-compliant fixtures can be brought into compliance through retrofit shielding or require full replacement. The results shall be reported to the Common Council with a proposed timeline and cost estimate for converting non-compliant fixtures to 3000K or lower, fully shielded, full cutoff alternatives, with a reduced maximum of 2200K or lower for fixtures located within 500 feet of any environmentally sensitive area protected under UDO § 20.04.030, with a goal of reaching at least 70% compliance within three years and substantial progress toward full compliance within five years, subject to Council appropriation, utility coordination with Duke Energy, and alignment where practical with the natural replacement cycle of existing fixtures. *This satisfies Dark Sky Community Requirement 2(A).*
- (b) That the City establish a sky quality measurement program, in partnership with Indiana University’s astronomy department or other qualified entity, to document baseline and ongoing nighttime sky brightness conditions at representative locations across the city. *This satisfies Dark Sky Community Requirement 6,*
- (c) That the City develop a public education and outreach program on light pollution and dark sky awareness, which may be coordinated with existing environmental education efforts and community partners, with a goal of at least three public outreach events annually. *This satisfies Dark Sky Community Requirement 2(B) and 4(A),*
- (d) That the Commission on Sustainability and Resilience and/or the Environmental Commission, upon substantial progress toward the actions described above, evaluate the city’s readiness to apply for Dark Sky Community designation and report to the Common Council with a recommended timeline for application.
- (e) That the City initiate coordination with Monroe County government regarding compatible lighting standards for the shared planning jurisdiction and for county roads adjacent to city limits, particularly near Griffy Lake, the Clear Creek corridor, and the Lake Monroe watershed.
- (f) That the Mayor formally request that Indiana University evaluate its campus outdoor lighting for consistency with DarkSky International standards, including correlated color temperature and shielding, and explore a voluntary commitment to align campus lighting practices with the city’s standards.
- (g) That the City of Bloomington amend its Outdoor Lighting Service Agreement with Duke Energy to specify correlated color temperatures of 3000K or lower (2200K or lower in sensitive areas), full cutoff optics, and appropriate wattage matched to task as the default procurement

249 specifications in all future Outdoor Lighting Service Agreements between the City and Duke  
250 Energy, consistent with the specifications already used in recent city contracts<sup>8</sup>.

251 **SECTION 2. Transmittal.**

- 252 1. The Chairs of each respective commission shall jointly transmit copies of this Resolution within  
253 ten (10) business days of the date of passage, or shall delegate such task to the Vice Chair or  
254 Secretary of both commissions, to the Mayor, to all members of the Common Council, to the  
255 Director of the Planning and Transportation, to the Director of Economic and Sustainable  
256 Development, to the Director of Public Works, to the Director of Housing and Neighborhood  
257 Development, to the Director of Parks and Recreation, to the President of Indiana University, to all  
258 members of the Indiana University Board of Trustees, to all members of the Monroe County  
259 Board of Commissioners, and to all members of the Monroe County Council.
- 260
- 261 2. The Chairs of each respective commission are requested to jointly transmit a courtesy copy to the  
262 chair of the Indiana University Department of Astronomy.
- 263
- 264 3. The staff liaisons of each respective commission are requested to post a copy of the resolution on  
265 both of the Commission websites within ten (10) business days of passage.
- 266
- 267 4. The Commissions further authorize the resolution author and co-sponsor(s) to speak before the  
268 Common Council on behalf of their respective Commissions in order to communicate the  
269 recommendations of this resolution as adopted.

270 PASSED AND ADOPTED JOINTLY by the Bloomington Commission on Sustainability and Resilience and the  
271 Bloomington Environmental Commission together in joint session upon this \_\_\_\_ day of \_\_\_\_\_, 2026.

272 \_\_\_\_\_  
273 Justin Vasel, Chair  
274 Bloomington Commission on Sustainability and Resilience  
275

276 \_\_\_\_\_  
277 Carrie Albright, Chair  
278 Bloomington Environmental Commission  
279

280 *The views expressed here are solely those of the Bloomington Commission on Sustainability and Resilience and the Bloomington Environmental*  
281 *Commission, as approved in their public meetings, and do not necessarily reflect the views, policies, or positions of the City of Bloomington. Only*  
282 *the Office of the Mayor has the authority to issue policy statements on behalf of the Executive Branch of the City of Bloomington.*

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<sup>8</sup> See city contract: [Outdoor Lighting Service Agreement with Duke Energy for Various Locations](#), Feb. 2026  
283 specifying 3000K lighting for 22 new light poles, which appears broadly representative of several other recent  
284 contracts with Duke for similar services.

## BCOSR Dark Sky Resolution - All Comments

| Commissioner | Tr | Line Number(s) | Deal Breaker?                       | Type      | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------|----|----------------|-------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Aarstad      |    |                | <input type="checkbox"/>            | Comment   | I support the goal of reducing unnecessary light pollution, but the resolution does not include or cite a corresponding analysis of the economic and operational impacts of the substantial regulatory changes being recommended. Several provisions could affect existing businesses and property owners, illuminated signage, parking and site lighting, development, and properties operating during evening hours. Before recommending these changes to Common Council, I would like to see consultation with Economic and Sustainable Development, Planning and Transportation, affected businesses and property owners, downtown and business organizations, development stakeholders, and relevant industry professionals, along with an assessment of compliance costs, affected parcels, administrative burden, and potential impacts on redevelopment and nighttime economic activity. Environmental objectives and economic development do not have to be in conflict, but the resolution should demonstrate that the proposed regulations have been evaluated for both. |
| Aarstad      |    | 15-23          | <input type="checkbox"/>            | Amendment | I recommend deletion of this WHEREAS clause in its entirety or substantial revision. I believe this language weakens the opening of the resolution. I believe the opening WHEREAS clause should establish the factual, evidentiary, and policy basis for the actions being recommended. Phrases such as "ancient human birthright," "spiritual," "awe and mystery," and references to "what other beings may be looking at the same sky" rely primarily on emotional or philosophical appeal rather than facts or data. Some of this language may also be alienating to readers who do not share those perspectives. The subsequent clauses provide much stronger grounding in ecological impacts, human health, public safety, energy use, and existing City policy. I recommend beginning with those fact-based justifications instead.                                                                                                                                                                                                                                           |
| Aarstad      |    | 32-35          | <input type="checkbox"/>            | Question  | What evidence supports the statement that Dark Sky Community certification would support astrotourism and the regional outdoor recreation economy, and what magnitude of economic benefit is reasonably anticipated for Bloomington? Has that projected benefit been weighed against potential compliance costs and impacts on existing businesses, development, signage, and nighttime commercial activity? I support evaluating potential economic benefits of certification, but believe those benefits and costs should be considered together.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Aarstad      |    | 105-109        | <input type="checkbox"/>            | Question  | Because this provision would require existing publicly and privately owned nonconforming lighting to be brought into compliance within ten years, what is the estimated number of private properties and fixtures that would be affected, and what is the estimated compliance cost to Bloomington businesses, nonprofits, multifamily properties, and other property owners? How would compliance be identified, communicated, enforced, and funded, and would any assistance or hardship mechanisms be available? I understand that the ten-year amortization requirement comes from the DarkSky Community Guidelines cited by the resolution; for that reason, I believe the likely local cost of this certification requirement should be understood before the City commits to pursuing certification.                                                                                                                                                                                                                                                                         |
| Aarstad      |    | 117-122        | <input type="checkbox"/>            | Question  | How many existing properties in Bloomington currently use exterior uplighting of buildings or architectural features and would become nonconforming under this amendment? Because Section 1(a) would require existing nonconforming lighting to be brought into compliance within ten years, this provision could create retrofit or removal costs for existing property owners, not just affect future development. I would like to understand the number and types of properties that would be affected before recommending a citywide prohibition.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Aarstad      |    | 117-122        | <input type="checkbox"/>            | Question  | The resolution states that this prohibition exceeds Dark Sky Community requirements. What is the policy justification for prohibiting exterior architectural uplighting beyond what is necessary for certification? Before recommending a restriction that could affect architectural design, placemaking, and existing properties, I would like to understand what specific problem the current UDO standards fail to address and what additional light-pollution benefit is expected from a categorical prohibition.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Aarstad      |    | 117-122        | <input checked="" type="checkbox"/> | Amendment | I recommend replacing the categorical prohibition on exterior architectural uplighting with the least-restrictive performance-based standard that DarkSky International confirms is compatible with Community certification. Where certification requirements permit, the UDO should preserve the ability to use limited architectural lighting subject to appropriate controls on light output, spill, hours of operation, and skyward light. This would advance light-pollution goals while preserving flexibility for architectural design and placemaking. Because the resolution expressly acknowledges that a total prohibition exceeds Dark Sky Community requirements, I do not believe a blanket prohibition has been sufficiently justified.                                                                                                                                                                                                                                                                                                                              |
| Aarstad      |    | 149-161        | <input type="checkbox"/>            | Question  | Before recommending this provision, can commissioners provide a GIS map showing the land and parcels located within 500 feet of the environmental areas identified here, including the number and types of existing and potentially developable commercial, mixed-use, residential, and institutional properties affected? The proposed language establishes a very high threshold for any new public or private outdoor lighting and expressly exceeds Dark Sky Community requirements. How would it apply to ordinary site needs such as building entrances, parking areas, pedestrian routes, loading/service areas, and redevelopment of existing sites? I would like to understand the geographic, development, operational, and economic impact of the 500-foot restriction before supporting it.                                                                                                                                                                                                                                                                             |
| Aarstad      |    | 172-176        | <input type="checkbox"/>            | Question  | What analysis supports extending the 40,000-lumens-per-acre cap to all mixed-use and nonresidential properties, regardless of use or context? My understanding is that the DarkSky requirement cited here requires a policy addressing over-lighting, such as a lumen-per-acre cap, but does not itself specify a 40,000-lumen limit. Has there been an evaluation of how this cap would affect different uses such as retail, hotels, offices, healthcare, industrial or institutional properties, parking-intensive sites, and existing development? In conjunction with the ten-year amortization requirement, how many existing properties would become nonconforming under this change?                                                                                                                                                                                                                                                                                                                                                                                        |
| Aarstad      |    | 178-184        | <input type="checkbox"/>            | Question  | The resolution acknowledges that applying the proposed curfew to parking lots, canopies, and drive-through bays exceeds Dark Sky Community requirements. What local policy analysis supports imposing these additional restrictions, and why was 10 p.m. selected as the appropriate standard? Please also clarify what "curfew" requires for these uses - complete shutoff, dimming, or another reduction - and what is included within "normal authorized activities." I would like to understand how the provision would apply to businesses operating after 10 p.m., employees remaining after closing, deliveries, overnight operations, and other legitimate activities, as well as the potential operational, safety, and economic-development impacts.                                                                                                                                                                                                                                                                                                                      |
| Aarstad      |    | 186-192        | <input type="checkbox"/>            | Question  | What is intended to be included within the term "illuminated signs"? DarkSky's guidelines define an illuminated sign broadly to include informational or advertising signs illuminated by either internal or external means, but that definition is not included in the proposed UDO language. Would this provision apply to ordinary internally lit storefront signs, channel-letter signs, monument signs, externally lit signs, electronic reader boards, and other forms of business identification? I believe the scope should be clearly defined before recommending this amendment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Aarstad      |    | 186-192        | <input checked="" type="checkbox"/> | Amendment | Assuming "illuminated signs" includes ordinary business-identification signage, I recommend revising the requirement that sign illumination be extinguished one hour after sunset. This could require otherwise-open businesses to turn off identification signage during normal operating hours, particularly during the winter months. I recognize that the one-hour-after-sunset provision appears in the 2018 Dark Sky Community Guidelines cited by the resolution. Before adopting it, I recommend confirming with DarkSky whether the current Community certification requirements permit an alternative tied to reasonable nighttime hours and/or business operating hours. DarkSky's separate guidance for electronic message centers, for example, uses 11 p.m. or 30 minutes after close of business, whichever is later. If an operating-hours alternative is not compatible with Community certification, I believe the Commission should explicitly weigh this business impact when determining whether formal certification warrants adopting this restriction.      |

BCOSR Passed X-Y-Z

EC Passed X-Y-Z

**3 Resolution Author**

4 Zach Ammerman (BCOSR)

**6 Resolution Co-Sponsors**

7 Alex Jorck (BCOSR)

8 Justin Vassel (BCOSR)

9 Matt Caldie (EC)

10 Adam Martinez (EC)

11 Karl Gaisser (EC)

**12 BCOSR RESOLUTION 2026-06 / EC RESOLUTION 2026-01****13 MINIMIZING LIGHT POLLUTION AND ATTAINING  
14 DARK SKY CERTIFICATION FOR BLOOMINGTON**

15 WHEREAS, gazing at the majesty of the stars is an ancient human birthright common to all cultures since time  
16 immemorial, a source of expansive awe and mystery, of myths and legends, of direction both  
17 spiritual and navigatory, of the humbling awareness of the vastness of the cosmos and the  
18 perspective of our small place in it, of connection to galaxies whose basic matter is our matter and  
19 of wonder at the question of what other beings may be looking at the same sky, of the knowledge  
20 that to look up is to look back across time and that some starlight reaching our eyes was emitted  
21 even before the birth of our species, of the passage of seasons and the marking of births, of  
22 humanity's deepest inquiries into the nature of the universe and of the quiet contemplation  
23 available to anyone who steps out and looks up; and

24 WHEREAS, light pollution causes profound ecological disruption, manipulating the rhythms of the natural, and  
25 contributing to increased insect mortality, bird disorientation, disrupted plant phenology, confused  
26 migration patterns, with documented harms to species such as the endangered Indiana bat and to  
27 declining firefly populations, as well as causing suppressed melatonin production in humans; and

28 WHEREAS, the presence in our city of Indiana University's Astronomy Department and the Kirkwood  
29 Observatory, as well as Bloomington's proximity to Hoosier National Forest, Morgan-Monroe and  
30 Yellowwood State Forests, Brown County, Spring Mill, and McCormick's Creek State Parks, and  
31 some of the darkest remaining skies in Indiana makes the city a natural candidate to anchor a  
32 regional dark sky corridor, ~~and a meaningful reduction in light pollution and Dark Sky Community~~  
33 ~~certification~~ would distinguish Bloomington as a leader in a growing national movement while  
34 supporting astrotourism and the regional outdoor recreation economy; and

35 WHEREAS, light pollution is a manageable phenomenon that can be reduced by choice through political will  
36 and vision, ~~and Bloomington is well-placed to further reduce light pollution, attain certification as~~  
37 ~~a Dark Sky community, having already made advancements that meet some of the existing criteria~~  
38 ~~for such a designation~~; and

39 WHEREAS, the American Medical Association in 2016 adopted guidance (Report 2-A-16)<sup>1</sup> recommending that  
40 outdoor lighting use a correlated color temperature of no greater than 3000 Kelvin, finding that

---

<sup>1</sup>Human and Environmental Effects of Light Emitting Diode (LED) Community Lighting, Report of the Council on

41 Science and Public Health, American Medical Association:

42 [https://policysearch.ama-assn.org/councilreports/downloadreport?uri=/councilreports/a16\\_csaph2.pdf](https://policysearch.ama-assn.org/councilreports/downloadreport?uri=/councilreports/a16_csaph2.pdf)

43 high-CCT lighting is associated with adverse health effects including sleep disruption and  
44 melatonin suppression; and

45 WHEREAS, a 2026 study<sup>2</sup> found that artificial light at night significantly extends the duration of the pollen  
46 season and elevates allergen exposure, with light-polluted sites experiencing pollen seasons up to  
47 fifty days longer and nearly twice the proportion of days at severe allergy thresholds compared to  
48 sites with minimal artificial light; and

49 WHEREAS, the assumption that more lighting necessarily produces greater public safety is not supported by  
50 evidence; research<sup>3</sup> consistently finds that poorly designed lighting can reduce safety by producing  
51 glare<sup>4</sup> that impairs night vision and creating sharp shadows that conceal rather than reveal, and that  
52 the most rigorous studies on the relationship between lighting levels and crime find no consistent  
53 effect, while finding that lighting quality, direction, and appropriateness to context matter far more  
54 than light quantity; and

55 WHEREAS, the City does not currently maintain a comprehensive inventory of streetlights within  
56 Bloomington, and existing datasets held by the City and Duke Energy diverge dramatically in their  
57 totals, do not agree on which lights the City itself maintains, omit most city-maintained lights in  
58 parks, and do not include any information on lights on the Indiana University campus, all  
59 demonstrating the need for a full inventory of public lights; and

60 WHEREAS, the City directly maintains only a small fraction of the total streetlights within Bloomington, with  
61 the overwhelming majority leased from or maintained by Duke Energy; and

62 WHEREAS, based on responses to public record requests, the city does not currently possess an inventory of  
63 streetlights that contains information pertaining to the correlated color temperature or most recent  
64 date of replacement for lights maintained either by Duke or the city; and

65 WHEREAS, outdoor lighting accounts for a significant share of municipal energy consumption, and measures  
66 such as dimming, adaptive controls, curfews, and the removal of unwarranted fixtures directly  
67 reduce electricity use, lowering both costs to the community and greenhouse gas emissions  
68 associated with energy generation; and

69 WHEREAS, the City of Bloomington began a large-scale conversion of sodium vapor streetlights to LED by  
70 2023<sup>5</sup>, during which period uReport complaints from residents regarding bright, glaring, or  
71 otherwise intrusive lighting rose sharply from an average of 11 per year in the preceding decade to  
72 over one hundred per year, consistent with Duke Energy's standard Roadway LED product being  
73 specified at 4000 Kelvin through this period; and

74 WHEREAS, more recent Outdoor Lighting Service Agreements indicate that fixtures now being leased by the  
75 City are 3000 Kelvin and compliant with the recommended color temperature standard, such that  
76 bringing the remaining non-compliant fixtures into compliance through the natural replacement  
77 cycle represents primarily an ongoing operational cost rather than a significant capital expenditure;  
78 and

---

83 <sup>2</sup> Brandt Geist, Lin Meng, Daniel S W Katz, Huidong Li, Franz Hölker, Qian Xiao, Artificial light at night extends  
84 pollen season and elevates allergen exposure, PNAS Nexus, Volume 5, Issue 1, January 2026, pgaf405,  
85 <https://doi.org/10.1093/pnasnexus/pgaf405>

80 <sup>3</sup> Steinbach, R., Perkins, C., Tompson, L., Johnson, S., Armstrong, B., Green, J., Grundy, C., Wilkinson, P., &  
81 Edwards, P. (2015). "The effect of reduced street lighting on road casualties and crime in England and Wales:  
82 controlled interrupted time series analysis." Journal of Epidemiology and Community Health, 69(11), 1118–1124.  
83 DOI: [10.1136/jech-2015-206012](https://doi.org/10.1136/jech-2015-206012)

<sup>4</sup> <https://darksky.org/resources/what-is-light-pollution/effects/safety/>

79 <sup>5</sup> "Bloomington in the midst of transitioning to LED streetlamps," Indiana Public Media, June 2023  
<https://www.ipm.org/2023-06-28/bloomington-in-the-midst-of-transitioning-to-led-streetlamps>

85 WHEREAS, Bloomington's Unified Development Ordinance (UDO) at Section 20.04.090 already requires full  
86 cutoff shielding, establishes light trespass limits at property lines, caps total lumen output adjacent  
87 to residential districts, mandates curfews for parking lots and recreational facilities, and prohibits  
88 lighting of conservation easements, ~~meeting some but not all of the criteria<sup>6</sup> established by~~  
89 ~~DarkSky International for community designation~~; and

90 ~~WHEREAS, certification of Bloomington as a Dark Sky Community would make it among the largest such~~  
91 ~~communities in the United States and peer to cities such as Flagstaff, Arizona, a similarly sized~~  
92 ~~college town; and ¶~~

93 WHEREAS, ~~meaningfully lowering light pollution~~obtaining Dark Sky Community status is an ambitious,  
94 attainable goal for Bloomington, and the substantive reforms required to pursue it would  
95 meaningfully reduce light pollution, protect ecological and human health, and improve nighttime  
96 quality of life ~~regardless of whether full certification is ultimately achieved.~~

97 NOW THEREFORE, BE IT HEREBY RESOLVED BY THE BLOOMINGTON COMMISSION ON  
98 SUSTAINABILITY AND RESILIENCE AND THE BLOOMINGTON ENVIRONMENTAL COMMISSION,  
99 THAT

100 **SECTION 1. Recommendations.**

- 101 (1) **Unified Development Ordinance (UDO) Changes.** The following changes to the UDO are recommended  
102 to reduce light pollution ~~for and to advance Bloomington toward certification as a Dark Sky Community~~  
103 ~~by DarkSky International.~~
- 104
- 105 (a) ~~That the Common Council amend UDO § 20.04.090(b) by adding a new subsection (4), titled~~  
106 ~~“Amortization of Non-Conforming Lighting,” to read: “All outdoor lighting fixtures existing on~~  
107 ~~the effective date of this subsection, both publicly and privately owned, that do not conform to the~~  
108 ~~requirements of UDO § 20.04.090 shall be brought into compliance within ten (10) years of the~~  
109 ~~effective date of this subsection.” This satisfies Dark Sky Community Requirement 1(H), ¶~~  
110
- 111 (b) That the Common Council amend UDO § 20.04.090(c)(4) to add a new subsection (d) as follows:  
112 “A maximum light intrusion threshold of 0.1 footcandles shall be established at the boundary of  
113 any riparian buffer, wetland buffer, karst conservancy easement, or conservation easement  
114 established under UDO § 20.04.030, and to require photometric plans demonstrating compliance  
115 for development adjacent to such areas.” ~~This exceeds Dark Sky Community requirements.~~  
116
- 117 (c) That the Common Council amend UDO § 20.04.090(c)(5) by adding a new subsection (C), titled  
118 “Prohibition of Exterior Uplighting,” to read: “Exterior uplighting of buildings and architectural  
119 features is prohibited, with a narrow exception for structures designated as historic where the  
120 Historic Preservation Commission approves a lighting plan” and to repeal UDO §  
121 20.04.090(c)(5)(A)(iii) which allows such uplighting when under canopy structures. ~~This exceeds~~  
122 ~~Dark Sky Community requirements.~~  
123
- 124 (d) That the Common Council amend UDO § 20.04.090(c)(5)(A) to add a definition of “fully  
125 shielded” as follows after (i): “(ii) Fully shielded shall mean that the fixture, as installed, (a) emits  
126 no light at or above the horizontal plane, such that the light source is not visible from any point at  
127 or above the horizontal plane of the fixture; (b) does not exceed a rating of U0, G1, and B2 under  
128 the Illuminating Engineering Society's BUG classification system<sup>7</sup> (TM-15) with a reduced  
129 maximum of U0, G0, B1 for fixtures within 500 feet of any environmentally sensitive area  
130 protected under § 20.04.030; and (c) directs all emitted light within a maximum cone of seventy  
131 (70) degrees from the vertical axis of the fixture (i.e., no light emitted at angles greater than 70  
132 degrees from nadir),” and deleting § 20.04.090(c)(5)(A)(iii). ~~This clarifies and significantly~~

<sup>6</sup> See full list of criteria here: [https://darksky.org/app/uploads/2018/07/IDSC\\_Guidelines\\_Jun2018.pdf](https://darksky.org/app/uploads/2018/07/IDSC_Guidelines_Jun2018.pdf) ¶

<sup>7</sup> [http://www.escolighting.com/PDFfiles/BUG\\_rating.pdf](http://www.escolighting.com/PDFfiles/BUG_rating.pdf)

~~strengthens the existing full cutoff standard, exceeding Dark Sky Community Requirement 1(A).~~

- (e) That the Common Council amend UDO § 20.04.090(c) of the UDO to add a new subsection (7) as follows: “A maximum color temperature of 3000 Kelvin or lower for all new outdoor lighting installations shall be required and any replacement of existing outdoor lighting fixtures shall comply with the same correlated color temperature standards, with a reduced maximum of 2200 Kelvin or lower for fixtures within 500 feet of any environmentally sensitive area protected under Section 20.04.030.” ~~This satisfies Dark Sky Community Requirement 1(B).~~
- (f) That the Common Council amend UDO § 20.04.090(c) by adding a new subsection (8), titled “Warrant for Publicly-Owned Lighting,” to read: “(A) General Provisions. New publicly-owned outdoor lighting shall be installed only where a specific, site-specific, and documented safety, navigation, or functional need has been established. General assertions of improved safety or security, without reference to conditions at the specific location, shall not constitute a sufficient warrant.” ~~This satisfies Dark Sky Community Requirement 1(E)(i).~~
- (g) That the Common Council add a new subpart (B) to UDO § 20.04.090(c)(8), titled “Lighting Restrictions Near Environmentally Sensitive Areas,” to read: “No new public outdoor lighting, whether publicly or privately owned, shall be installed within 500 feet of any riparian buffer, wetland buffer, karst conservancy easement, or conservation easement established under Section 20.04.030, unless the installing authority or applicant demonstrates by clear and specific evidence that (i) a serious and immediate risk to public safety exists that cannot be mitigated through non-lighting alternatives such as reflective materials, signage, barriers, or path realignment; (ii) the proposed installation is the minimum fixture count, lowest lumen output, and narrowest distribution pattern sufficient to address the identified risk; and (iii) all fixtures comply with a maximum correlated color temperature of 2200 Kelvin, are fully shielded with no backlight component oriented toward the sensitive area, and are subject to adaptive controls or curfew. The burden of proof shall rest with the installing authority or applicant.” ~~This exceeds Dark Sky Community requirements.~~
- (h) That the Common Council amend UDO § 20.04.090(c) by adding a new subsection (9), titled “Publicly-Owned Lighting Controls,” to read: “All new installations of publicly-owned outdoor lighting, to the furthest extent practicable, including streetlights, park path lighting, and lighting at public facilities, should shall incorporate adaptive controls such as timers, motion sensors, or photocell-activated switches, or otherwise shall be subject to an established curfew consistent with the use. In the absence of an explicitly established curfew for a public use, a default cutoff time of no later than 10 pm or 30 minutes after normal authorized activities, whichever is later, shall be established.” ~~This satisfies Dark Sky Community Requirement 1(E)(ii).~~
- (i) That the Common Council amend UDO § 20.04.090(e)(1) by striking the language limiting the lumens-per-acre cap to parcels “bordered by any R1, R2, R3, R4, or RMH zoning district” so that the 40,000 lumens per acre cap applies to all mixed-use and nonresidential properties, and retitling the subsection from “Adjacent to Residential Districts” to “Maximum Light Output.” ~~This satisfies Dark Sky Community Requirement 1(C) and 1(D).~~
- (j) That the Common Council amend UDO § 20.04.090(e)(2)(A), (B), and (C) to move the curfew time up to 10 p.m. for all categories that currently have an 11 p.m. curfew; and to establish a 10 p.m. curfew for all other categories that currently have no hard curfew. All categories shall allow lighting to stay illuminated after 10 p.m. until up to 30 minutes past the cessation of normal authorized activities if those activities take place after 10 p.m. ~~This satisfies Dark Sky Community Requirement 1(G) for outdoor recreational facilities and exceeds Dark Sky requirements for parking lots, canopies, and drive-through bays.~~
- (k) That the Common Council amend UDO § 20.04.100(g) by adding a new subsection (5), titled “Illuminated Sign Standards,” to read: “New illuminated signs shall not exceed 100 nits (100 cd/m<sup>2</sup>) luminance between sunset and sunrise, measured under conditions of a full white display. Sign illumination shall be extinguished completely at 10 pm or thirty (30) minutes after cessation of normal activities, whichever is later. ~~beginning one hour after sunset and remain off until one~~

~~hour before sunrise. New individual illuminated signs shall not exceed 200 square feet (18.6 square meters) of luminous surface area.” This satisfies Dark Sky Community Requirement 1(F)(i), 1(F)(ii), and 1(F)(iii).~~

(l) That the Common Council amend UDO § 20.04.090(c)(4)(a) to read “All lighting fixtures shall be installed so that light trespass from any property line shall not exceed 0.5 footcandles at a point one (1) meter beyond the property line. Properties bordered by R1, R2, R3, R4, or RMH are allowed no more than 0.3 footcandles at a point five meters beyond the property line adjacent to those districts or at the dwelling façade, whichever distance is closest.”

(m) That the Common Council amend UDO § 20.04.090(c)(4)(b) to read “Properties bordered by R1, R2, R3, R4, or RMH are allowed no more than 0.3 footcandles at a point five (5) meters beyond the property line adjacent to those districts or at the dwelling façade, whichever distance is closest.”

(2) **General Recommendations.** The following policy actions are further recommended to ~~meaningfully bring~~ ~~Bloomington into compliance for Dark Sky Community recognition and~~ reduce light pollution in Bloomington:

(a) That City of Bloomington Utilities conduct an inventory of all city-owned and utility-leased streetlights and public facility lighting, assessing each fixture for correlated color temperature, shielding type, full cutoff compliance, and lumen output. The inventory shall specifically identify all fixtures that do not meet the full cutoff standard defined in UDO § 20.04.090(c)(5)(A), and shall include an assessment of whether non-compliant fixtures can be brought into compliance through retrofit shielding or require full replacement. The results shall be reported to the Common Council. ~~with a proposed timeline and cost estimate for converting non-compliant fixtures to 3000K or lower, fully shielded, full cutoff alternatives, with a reduced maximum of 2200K or lower for fixtures located within 500 feet of any environmentally sensitive area protected under UDO § 20.04.030, with a goal of reaching at least 70% compliance within three years and substantial progress toward full compliance within five years, subject to Council appropriation, utility coordination with Duke Energy, and alignment where practical with the natural replacement cycle of existing fixtures. This satisfies Dark Sky Community Requirement 2(A).~~

(b) That the City establish a sky quality measurement program, in partnership with Indiana University’s astronomy department or other qualified entity, to document baseline and ongoing nighttime sky brightness conditions at representative locations across the city. ~~This satisfies Dark Sky Community Requirement 6.~~

(c) That the City develop a public education and outreach program on light pollution and dark sky awareness, which may be coordinated with existing environmental education efforts and community partners, with a goal of at least three public outreach events annually. ~~This satisfies Dark Sky Community Requirement 2(B) and 4(A).~~

(d) ~~That the Commission on Sustainability and Resilience and/or the Environmental Commission, upon substantial progress toward the actions described above, evaluate the city’s readiness to apply for Dark Sky Community designation and report to the Common Council with a recommended timeline for application.~~

(e) That the City initiate coordination with Monroe County government regarding compatible lighting standards for the shared planning jurisdiction and for county roads adjacent to city limits, particularly near Griffy Lake, the Clear Creek corridor, and the Lake Monroe watershed.

(f) That the Mayor formally request that Indiana University evaluate its campus outdoor lighting ~~in order to lower light pollution~~ for consistency with DarkSky International standards, including correlated color temperature and shielding, and explore a voluntary commitment to align campus lighting practices with the city’s standards.

- (g) That the City of Bloomington amend its Outdoor Lighting Service Agreement with Duke Energy to specify correlated color temperatures of 3000K or lower (2200K or lower in sensitive areas), full cutoff optics, and appropriate wattage matched to task as the default procurement specifications in all future Outdoor Lighting Service Agreements between the City and Duke Energy, consistent with the specifications already used in recent city contracts<sup>8</sup>.

**SECTION 2. Transmittal.**

1. The Chairs of each respective commission shall jointly transmit copies of this Resolution within ten (10) business days of the date of passage, or shall delegate such task to the Vice Chair or Secretary of both commissions, to the Mayor, to all members of the Common Council, to the Director of the Planning and Transportation, to the Director of Economic and Sustainable Development, to the Director of Public Works, to the Director of Housing and Neighborhood Development, to the Director of Parks and Recreation, to the President of Indiana University, to all members of the Indiana University Board of Trustees, to all members of the Monroe County Board of Commissioners, and to all members of the Monroe County Council.
2. The Chairs of each respective commission are requested to jointly transmit a courtesy copy to the chair of the Indiana University Department of Astronomy.
3. The staff liaisons of each respective commission are requested to post a copy of the resolution on both of the Commission websites within ten (10) business days of passage.
4. The Commissions further authorize the resolution author and co-sponsor(s) to speak before the Common Council on behalf of their respective Commissions in order to communicate the recommendations of this resolution as adopted.

PASSED AND ADOPTED JOINTLY by the Bloomington Commission on Sustainability and Resilience and the Bloomington Environmental Commission together in joint session upon this \_\_\_\_ day of \_\_\_\_\_, 2026.

\_\_\_\_\_  
Justin Vasel, Chair  
Bloomington Commission on Sustainability and Resilience

\_\_\_\_\_  
Carrie Albright, Chair  
Bloomington Environmental Commission

*The views expressed here are solely those of the Bloomington Commission on Sustainability and Resilience and the Bloomington Environmental Commission, as approved in their public meetings, and do not necessarily reflect the views, policies, or positions of the City of Bloomington. Only the Office of the Mayor has the authority to issue policy statements on behalf of the Executive Branch of the City of Bloomington.*

<sup>8</sup> See city contract: [Outdoor Lighting Service Agreement with Duke Energy for Various Locations](#), Feb. 2026 specifying 3000K lighting for 22 new light poles, which appears broadly representative of several other recent contracts with Duke for similar services.

**Jolie Perry** <jolie.perry@bloomington.in.gov>

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**Dark Sky Initiative**

4 messages

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**david howard** <davidhoward314159@gmail.com>  
To: sustain@bloomington.in.gov

Wed, Aug 12, 2026 at 1:36 PM

Hi,

I would like to support the idea of reducing light pollution in Bloomington. It is sad that very few people get the chance to see a truly dark sky. Anything that can be done to bring back actual darkness and all the stars and Milky Way to Indiana would be beneficial to Hoosiers.

Best regards,

Dave Howard

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**Jolie Perry** <jolie.perry@bloomington.in.gov>  
To: david howard <davidhoward314159@gmail.com>  
Cc: sustain@bloomington.in.gov

Wed, Aug 12, 2026 at 4:05 PM

Hello Dave,

Thank you for sharing your input! I will send this to the members of the Bloomington Commission on Sustainability and Resilience.

Best,

**Jolie Perry** (she/her)

Sustainability Program Coordinator, Department of Economic and Sustainable Development

**City of Bloomington** | 401 North Morton Street, Bloomington, IN 47404812-349-3803 | [bloomington.in.gov](https://bloomington.in.gov)

[Quoted text hidden]

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**Jolie Perry** <jolie.perry@bloomington.in.gov>  
To: david howard <davidhoward314159@gmail.com>

Wed, Aug 12, 2026 at 4:08 PM

Hi Dave,

Quick follow-up question, are you a resident of Bloomington or Monroe County, or do you commute to Bloomington for reasons such as work, school, family, amenities, etc?

Thanks,

**Jolie Perry** (she/her)

Sustainability Program Coordinator, Department of Economic and Sustainable Development

**City of Bloomington** | 401 North Morton Street, Bloomington, IN 47404

812-349-3803 | [bloomington.in.gov](https://bloomington.in.gov)

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**david howard** <davidhoward314159@gmail.com>  
To: Jolie Perry <jolie.perry@bloomington.in.gov>

Wed, Aug 12, 2026 at 7:05 PM

Hi Jolie,

I am a member of the Indiana Astronomical Society. Link Observatory (which we use regularly) in Martinsville is effected by light pollution from Bloomington.

I'm also an IU alumni so visit and am interested in Bloomington affairs. I'll be down again for the first football home game.

Best regards,

Dave Howard

On Aug 12, 2026, at 4:08 PM, Jolie Perry <jolie.perry@bloomington.in.gov> wrote:

Hi Dave,

Quick follow-up question, are you a resident of Bloomington or Monroe County, or do you commute to Bloomington for reasons such as work, school, family, amenities, etc?

Thanks,

**Jolie Perry** (she/her)

Sustainability Program Coordinator, Department of Economic and Sustainable Development

**City of Bloomington** | [401 North Morton Street, Bloomington, IN 47404](#)

812-349-3803 | [bloomington.in.gov](https://bloomington.in.gov)

<Mail Attachment.png>

On Wed, Aug 12, 2026 at 4:05 PM Jolie Perry <jolie.perry@bloomington.in.gov> wrote:

Hello Dave,

Thank you for sharing your input! I will send this to the members of the Bloomington Commission on Sustainability and Resilience.

Best,

**Jolie Perry** (she/her)

Sustainability Program Coordinator, Department of Economic and Sustainable Development

**City of Bloomington** | [401 North Morton Street, Bloomington, IN 47404](#)

812-349-3803 | [bloomington.in.gov](https://bloomington.in.gov)

<Mail Attachment.png>

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Jolie Perry <jolie.perry@bloomington.in.gov>

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## support for a Dark Sky Community

1 message

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**Molly O'Donnell** <mollysod@gmail.com>  
To: sustain@bloomington.in.gov

Thu, Aug 13, 2026 at 1:24 PM

I am writing to express my support of Bloomington becoming a Dark Sky Community. Artificial light at night is disruptive for insects and birds, as well as to human sleep cycles.  
Thank you for your consideration.

Molly O'Donnell  
she/her/hers  
mobile: 812-345-7399



Jolie Perry &lt;jolie.perry@bloomington.in.gov&gt;

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**Support for BCOSR Resolution 2026-06 / EC Resolution 2026-01: Dark Sky Initiative**

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**'Howard, Robert James Shearman' via Sustainability Inbox** <sustain@bloomington.in.gov>

Thu, Aug 13, 2026 at 1:32 PM

Reply-To: "Howard, Robert James Shearman" &lt;robjhowa@iu.edu&gt;

To: "sustain@bloomington.in.gov" &lt;sustain@bloomington.in.gov&gt;, "environment@bloomington.in.gov" &lt;environment@bloomington.in.gov&gt;

Good afternoon,

My name is Robert Howard; I'm a fifth-year Ph.D. candidate in the Astronomy Department at Indiana University. I'm writing to express my support for BCOSR Resolution 2026-06, which would put Bloomington on the path to attaining dark sky certification.

The IU Astronomy Department has a proud tradition, dating back 125 years, of sharing views of the night sky with the public at Kirkwood Observatory, located on the edge of Dunn's Woods. Being so close to downtown, we're quite vulnerable to the effects of light pollution. Were Bloomington to obtain dark sky certification, we could ensure the continued use of this historic observatory and show a wider variety of astronomical objects to the public.

Thank you very much for your consideration.

Sincerely,  
Robert Howard

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Robert Howard (he/him)  
Astronomy Ph.D. Candidate | Indiana University  
[robjhowa@iu.edu](mailto:robjhowa@iu.edu)



Jolie Perry &lt;jolie.perry@bloomington.in.gov&gt;

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## Dark Sky Resolution

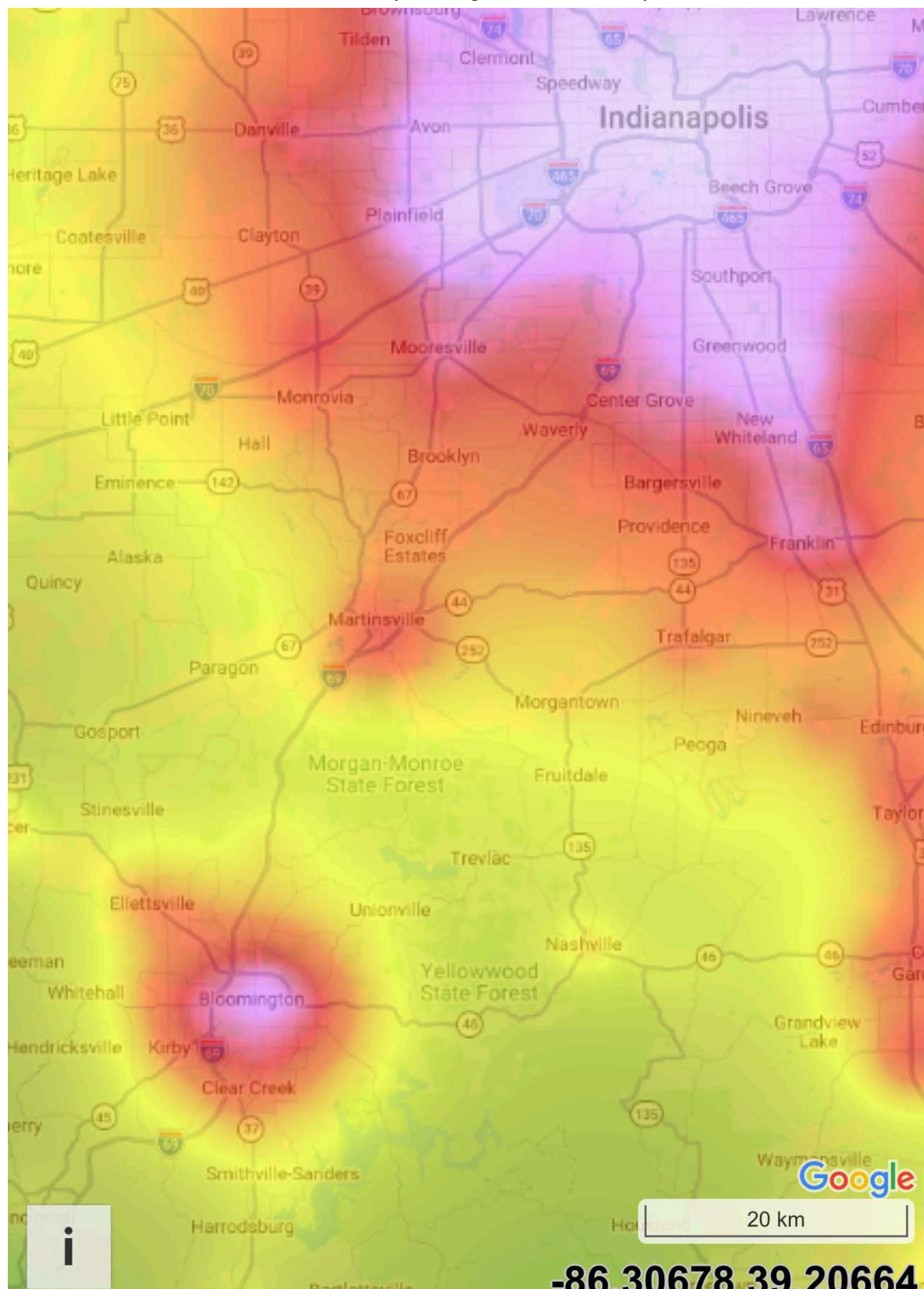
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**Tyler Pieper** <tpieper48@gmail.com>  
To: sustain@bloomington.in.gov

Thu, Aug 13, 2026 at 4:46 AM

Hello,

My name is Tyler Pieper, and I am a local resident of Bloomington. I wanted to reach out in support of the Dark Sky resolution. I spend most of my waking hours in the night here, and unfortunately the light pollution here in town is severe. The clouds are always clearly visible on moonless nights, and the glow from the northern part of town is intense and always visible. Most of the night sky is entirely blotted out. This becomes even more apparent with a quick drive to just outside of town, where the glow is so intense the difference between Bloomington's sky and the rest is stark. Despite being much much smaller than Indianapolis, the light pollution here rivals that of the capital (see attached).



This impacts not only night sky visibility, but also wildlife activity. It's not uncommon in some areas of town to see daytime birds active thanks to intense LED lights in parking lots, stadiums or apartments. The lights from a nearby apartment complex are so intense that without blackout blinds it looks like daylight out and sleeping is impossible.

I currently take photos of the night sky from my home in town, but the quality is severely limited by the degree of light pollution present. Shifting to warmer LEDs, enforcing light covers, limiting lumens/numbers of lights would go a long way to creating a better dark sky environment for everyone in town to enjoy.

Thanks,  
Tyler Pieper



Jolie Perry <jolie.perry@bloomington.in.gov>

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## Bloomington Dark Sky Initiative

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**'Zoltan Levay' via Sustainability Inbox** <sustain@bloomington.in.gov>

Wed, Aug 12, 2026 at 8:25 PM

Reply-To: Zoltan Levay <zgl@me.com>

To: sustain@bloomington.in.gov

I am writing to express my strong support for the initiative to make changes to Bloomington's lighting codes with the goal of becoming a Dark Sky Community, for all the reasons enumerated in BCOSR Resolution 2026-06. Most important to me are the impact on wildlife such as pollinator insects and migrating birds, human health, and preserving the visibility of the night sky. While I am not a resident of Bloomington, we are not far outside the city limits and are directly affected by lighting and other environmental issues in the area.

Zolt Levay



Jolie Perry <jolie.perry@bloomington.in.gov>

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## Dark Sky proposal

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**Craig Coley** <coleycraig@hotmail.com>

Tue, Aug 18, 2026 at 10:13 AM

To: "sustain@bloomington.in.gov" <sustain@bloomington.in.gov>

Hello, and thank you for your service to our community. I am writing in support of efforts to reduce light pollution. Acknowledging the benefit to public safety provided by some forms of night-time lighting, I believe that my quality of life and that of wildlife would be enhanced by a dark sky at night, and I support rules and regulations that move us in that direction.

Thank you for your time and attention.

Be well,  
-Craig Coley



Jolie Perry &lt;jolie.perry@bloomington.in.gov&gt;

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## A Dark Sky Community

1 message

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**'Pilachowski, Catherine A.' via Sustainability Inbox** <sustain@bloomington.in.gov>

Sun, Aug 16, 2026 at 2:42 PM

Reply-To: "Pilachowski, Catherine A." <cpilacho@iu.edu>

To: "sustain@bloomington.in.gov" <sustain@bloomington.in.gov>, "environment@bloomington.in.gov" <environment@bloomington.in.gov>

Hello and thank you for the opportunity to submit a comment on the initiative to make Bloomington a Dark Sky Community. IU Bloomington and Ivy Tech Bloomington combined teach astronomy to roughly a thousand students each semester. Foremost in those students' goals is a hope to learn about and understand the night sky, a sky that many of our students can barely see because of light pollution. Many, perhaps most, have never seen the Milky Way.

As a Dark Sky Community, Bloomington's leadership can inspire communities throughout Indiana to do the same and help restore a vision of the night sky that inspires all of us.

Thank you –

Catherine Pilachowski



Jolie Perry &lt;jolie.perry@bloomington.in.gov&gt;

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## Dark Sky initiative

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Uriel C. &lt;rcc.triangulum33@gmail.com&gt;

Tue, Aug 18, 2026 at 1:11 AM

To: sustain@bloomington.in.gov, environment@bloomington.in.gov

Hello, I'm Dr. Ross Caton (Uriel is my Google handle). I earned my PhD in Geophysics from IU in 2020 under Dr. Gary Pavlis. I recently learned about the draft resolution recommending that Bloomington take steps to become a Dark Sky community, and I want to voice my support for this initiative.

While it is true that dark sky initiatives often find support from both professional and amateur astronomers, I want to stress that the benefits of preserving nighttime darkness go beyond this. For the entire history of life on Earth, life has both slept and lived under natural dark skies. These are the conditions that life has adapted itself to over its hundreds of millions of years of existence, including the 200,000 or so years of the existence of our own species. Our comparatively short 70-100 year life spans may make it easier to view the ever-brightening night sky as normal, but it is not. As sleep becomes increasingly evasive for humans, and as light pollution begins confusing migratory and nocturnal species, the importance of taking steps to check ever-growing light pollution also grows.

But I should hope that it is not even necessary to appeal to practical necessities to begin with. Ever since the presidency of Theodore Roosevelt, our country has recognized the importance of taking policy steps towards preserving the natural beauty of the world we live in. If we feel the need to preserve the natural beauty of the Grand Canyon and Yellowstone, why should our night sky be different? For thousands of years humans have marvelled at the stars and Milky Way, finding both scientific and spiritual insight in their natural majesty. The existence of the Kirkwood Observatory proves that this was once possible even in the center of Bloomington. Now, look straight up from the square on a clear night and see how much we have lost. Additionally, the attitude of the current presidential administration makes it even more urgent for state and local governments to do their part to preserve the beauty of our environment.

I encourage you to take a quick look at [www.lightpollutionmap.info](http://www.lightpollutionmap.info). Truly dark skies have been almost completely lost east of the 100th meridian. In southern Indiana, we have the opportunity to preserve a little of what's left. Our city is locally the largest culprit of light pollution. Because the nearby national forest emits almost zero light pollution, little would be left in our area if we can control our own. I will even suggest a starting point: on the light pollution map, switch from "Sky Brightness" to "VIIRS" (this makes it easier to see the sources of light pollution). You will see that aside from the university, the brightest sources of light pollution are large parking lots (i.e. the Mall and Whitehall Crossing). While controlling our light pollution should not end with parkings lots, it makes sense for the first policy initiatives to begin there. Low-pressure sodium lamps are nearly as efficient as LEDs, and their warm color is less disruptive to human and animal life than blue-rich LEDs. Lamps should also be properly shielded so that all their light is directed downwards.

Thank you for taking the time to read this email. I hope that you will consider making our city the first dark-sky community in our State.

Ross Caton, PhD



Jolie Perry &lt;jolie.perry@bloomington.in.gov&gt;

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## Light Pollution Ordinance

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**'Kleinhans, Frederick W' via Sustainability Inbox** <sustain@bloomington.in.gov>

Sun, Aug 16, 2026 at 5:43 PM

Reply-To: "Kleinhans, Frederick W" &lt;fkleinha@iu.edu&gt;

To: "sustain@bloomington.in.gov" &lt;sustain@bloomington.in.gov&gt;, "environment@bloomington.in.gov" &lt;environment@bloomington.in.gov&gt;

Hello Bloomington Government,

Sunday, Aug 16, 2026

I want to speak in favor of the Light Pollution abatement proposal coming before you this week. I live in Indianapolis but care about Bloomington for several reasons.

First, it is the right thing to do and makes sense for a college town to be out in front on issues such as this. And I note, parenthetically, IU has a world class astronomy Dept. It would be a feather in their cap to live in a town that cares about light pollution.

I personally care about light pollution because I am an amateur astronomer and want to see the stars at night time. But for the average Bloomingtonite other factors are more important.

(1) it costs money to light up the sky. Let's just keep our light on the ground where we need it to light our way.

(2) Data increasingly show that night time lights mess up wildlife (we have all heard about the issues with sea turtles; but other creatures like birds are affected too) and there are subtle effects on human health.

Secondly, I often come down to Blackwell Campground in Hoosier National Forest just SE of Bloomington. Bloomington increasingly lights up my sky to the NW making the sky harder to observe and photograph. It is estimated that light pollution is growing at the rate of 5 to 10% a year.

I am retired from teaching astronomy at IUI aka IUPUI. Every year I would ask my students 'Have you seen the Milky Way, maybe during a summer picnic?' It used to be, more than half my class said yes. More recently less than half report knowing the Milky Way. It may seem like a little loss, but we should fight these things when possible. All these accumulative changes that degrade modern life are sad to observe.

Well, thanks for reading.  
clear skies,  
Fritz Kleinhans,  
IUI Physics, Emeritus

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**Note new address**

FW Kleinhans  
[fkleinha@iu.edu](mailto:fkleinha@iu.edu)  
Physics, IU Indianapolis



Jolie Perry &lt;jolie.perry@bloomington.in.gov&gt;

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## Resolution 2026-06

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**Judy Berkshire** <jimjudy@tds.net>

Mon, Aug 17, 2026 at 11:25 PM

To: sustain@bloomington.in.gov, environment@bloomiington.in.gov

Members of the Bloomington Commission on Sustainability and Resilience and Members of the Environmental Commission:

When I moved to Bloomington from my farm in north central Indiana, I was disappointed by the amount of light pollution in the night sky. I was no longer able to see the Milky Way. My backyard tomatoes overgrew because of the bright streetlight overlooking my backyard. There were fewer fireflies floating around my front yard on summer evenings.

I am happy to see that your Commissions are willing to take on the light pollution problem with Resolution 2026-06 and recommend to the Bloomington City Council that it adopt changes to lighting and zoning codes to put our city on track to becoming a Dark Sky Community. This Resolution goes beyond suggesting changes in lighting codes and addresses the need to coordinate with Monroe County and Indiana University for compatible lighting standards. It also suggests conducting a city-wide lighting inventory as well as the need for public outreach and education.

The goal of making Bloomington a Dark Sky Community will take time, but it is achievable. Resolution 2026-06 begins the process toward meeting the goal. Please vote to pass this resolution and support sending it to the City Council.

Sincerely,  
Judy Berkshire  
509 S. Rose Avenue  
Bloomington IN 47401

Sent from my iPad Judy Berkshire



Jolie Perry &lt;jolie.perry@bloomington.in.gov&gt;

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## Dark Sky resolution

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**Sandra Hernshaw** <hernshaw@msn.com>

Tue, Aug 18, 2026 at 2:07 PM

To: "sustain@bloomington.in.gov" &lt;sustain@bloomington.in.gov&gt;

Dear Members of the Bloomington Commission on Sustainability and Resilience,

I want to express my wholehearted support for the resolution to take all necessary steps for Bloomington to become a Dark Sky Community. I am so happy this is a possibility. As I walk through my house at night, I don't have to turn on any lights because there is so much light pouring in from the blindingly bright street light on the corner, my neighbors' porch lights and, often, the very bright lights at the tennis courts in Bryan Park. And I grieve for the birds who are trying to make sense of all this light when it should be dark, especially during their migrations when they fly at night and are in danger because of the light pollution. With so many bird species threatened with extinction and so many already extinct, this in itself is a reason to pass this resolution and take all subsequent steps needed for Bloomington to become a Dark Sky Community. There are many other health and environmental benefits of reducing or, better, eliminating, light pollution described in the resolution that are also good reasons to pass it. And finally, I long to be able to walk out into the night, as I did growing up in a very small Wisconsin town, and see the glory and feel the awe of looking up at great lights of the Milky Way. I am eighty years old and I hope to live long enough to be able to do so in Bloomington.

Thank you.

Sincerely,

Sandra Hernshaw  
1024 E. Maxwell Lane  
Bloomington 47401