



NANTUCKET TOWN ASSOCIATION MEETING

July 27, 2021, at 4:00 pm

Meeting held by Zoom conferencing

FINAL AND APPROVED MINUTES

Attendance (Participants as noted by Zoom): Trish Bridier, Carol Cross, Mary Anne Easley, Mary Longacre, Gail Norton, Lee Saperstein, Anne Terry, Henry Terry, Barbara von der Groeben, Charley Walters, and Paula Williams.

Additional Registrants: Caroline Ellis, Marsha Fader, Julie Gesner, Kit Murphy, Michelle Lease, Debi Lilly, Craig Muhlhauser, Janet Schulte, Will Willauer.

Thanks to the Atheneum, Amy Jenness, for hosting the meeting. They have sent a list of registrants and additional registrants are listed above. The meeting was recorded and the link (good for 30 days) is included here:

Meeting Recording; available for 30 days:

<https://us02web.zoom.us/rec/share/GKn4B5-ICPdJ74VwLq3YlqzMGpA3EL3aVQiXnsPyhyVPsyAfAoK0RZhhJ045Wha.uq7a5XNAYBSwXk4r?startTime=1627416041000>

Guest: Gail Walker, Vice-President Siasconset Civic League and Founder and Coordinator of Nantucket Lights; Amy Jenness, Atheneum.

I. Call the July 27, 2021, Nantucket Town Association Meeting to Order.

President Henry Terry called the meeting to order at 4:00 pm. He announced that the meeting is being recorded and those who could not attend are welcome to use the above link to watch the recording.

II. Approval of minutes of the Meeting of June 22, 2021.

Before asking for approval of the June minutes, Henry Terry asked Mary Longacre to give her correction to the Old Business portion of the minutes. She said that the draft was too optimistic

because it spoke of a completed brochure that would explain the Nantucket Civic League to new home owners. She offered the following correction.

“Mary Longacre reported that she has received various materials about the Nantucket Civic League and its member associations from Peter Morrison, Nantucket Civic League Co-President, for the purpose of creating a first draft of a brochure, which, once approved by the Civic League, will be given to local real estate offices to distribute to new homeowners.”

Henry Terry then asked for approval of the minutes of the meeting of June 22, 2021, as amended. Anne Terry moved approval, Trish Bridier seconded, and the vote to approve was unanimous.

III. Treasurer’s Report.

Anne Terry, Treasurer, gave the Treasurer’s report, attached, which had a beginning balance of \$4079.86, with dues of \$25.00 added and the charitable donation to the Atheneum of \$500.00 deducted, and the end balance was \$3604.86. A motion to approve was made by Trish Bridier, seconded by Mary Longacre, and approved unanimously.

IV. Guest Presentation: Gail Walker, Founder and Coordinator of Nantucket Lights.

Henry Terry asked that the agenda be rearranged to allow the guest speaker time for her presentation. Consent was unanimous. He then introduced Gail Walker, Vice-President of the ‘Sconset Civic League and Founder and Coordinator of Nantucket Lights, to talk about light pollution on Nantucket.

She indicated that her presentation was tailored to the Town but was based on one that she had recently given to the Civic League. The attached PDF file includes the PowerPoint slides that were shared along with the speaker notes for each slide. Before beginning, however, she asked if the Town Association would consider becoming an official sponsor of Nantucket Lights. More information is available on their web site: www.nantucketlights.org.

Upon finishing her formal presentation, Gail Walker first repeated her request for the Association’s endorsement and then entertained questions. Mary Anne Easley asked, if there are so many violations on Nantucket, how did these buildings gain approval? Gail Walker replied that the complaints-based system of enforcement has created a loophole that needs to be closed; she expects that improvements will come soon. Mary Anne Easley asked also if Nantucket Lights was in contact with the Historic District Commission, HDC. Yes, was the reply, and also with the Planning Department and local associations of builders and landscapers. Lee Saperstein asked if it can be determined how much light pollution can be linked to vehicle headlights. The reply is that we cannot tell but that the April 2020 satellite image (slide 4) was taken when traffic would have been relatively light. Lee Saperstein asked also a Town-significant question: can we identify easily business and commercial lighting violations? Gail Norton volunteered that Nantucket Island Resorts, NIR, controls a lot of commercial properties and their compliance should be recruited. Gail Walker agreed and said that they would be reaching out to them and others.

Old Business.

At 4:45 pm, Henry Terry resumed the meeting's agenda and said that there was no old business.

V. New Business

For new business, Henry Terry said that he had two items that we should discuss. The first was from citizens, who asked for confidence with respect to their name, who complained about the state of repair of 6 Fair Street and then asked if the Town Association could do something about it. Henry Terry reported that the building was in disrepair and the landscaping overgrown. He believed that there may be health issues with the building and it may be a candidate for a demolition-by-neglect action. He asked for ideas on what to do. Gail Walker contributed that they had a similar problem in 'Sconset and they contacted the Board of Health whom they thought would be most responsive. That is because the building-by-neglect bylaw requires complete inhabitability before it might be applied. Lee Saperstein suggested that we write to the Board of Health with copies to the Building and Fire Departments. Mary Longacre added that such a letter should be specific about for what we ask. In response to a question about ownership, Barbara von der Groeben said that we need to check the Town's web site. Although no specific motion was made, there was general agreement that a letter should be sent expressing an overall concern about the building's detriment to the downtown environment and appearance.

The second issue was for the Association's approval of additional applicants to the Local Area Plan Work Group. Of the six Association members who formed the original planning subcommittee, one has moved off Island and one has concluded that they do not live within the Town's boundaries. The four remaining, who have all indicated a willingness to serve, Mary Anne Easley, Marsha Fader, Lee Saperstein, and Henry Terry need to be augmented by five to seven additional members. Mary Longacre, who is now Vice-Chair of the NPEDC, said that three of these would be selected by the NPEDC according to their guidelines on Working Group composition: An Inn/Guest House Owner or Operators; a representative of a non-profit with facilities in the area (Maria Mitchell, NHA), and one NPEDC Member. The Planning Department had forwarded seven names of people who responded to the Town's advertisement asking for volunteers. Mary Longacre made two more points; the NPEDC would be unlikely to approve any candidate who served the Town in a senior position, which eliminated two of the respondents. She also said that if the Association wished to nominate candidates for the three designated positions, it would be most welcome to do so. There was no move to do this. She then provided a capsule resume for four of the remaining five and indicated that she had not seen the application from the fifth. Regrettably, it arrived during the meeting and was not seen until afterwards.

Mary Longacre said that the NPEDC believed that the optimum size of a Local Area Plan Work Group was nine, which meant that the Association would have to whittle the list of applicants in half. She then added that NPEDC might accept a request for 11 members. Lee Saperstein suggested that 11 was a good number because, given the complexity and heterogeneity of the Town, subcommittees would be an effective way to deal with the nine mandated elements of a plan. Consequently, the Association voted to authorize that Henry Terry, President, write to the

NPEDC and ask formally that the Work Group be expanded to 11 and that the four applicants of whom we had information, Liz Almodobar, Regen Horchow, Alison King, and Milton (Mickey) Rowland, be accepted for membership.

VI. Adjournment.

Henry Terry then announced that we had overrun our scheduled time; consequently, the meeting was adjourned at 5:13 pm.

***Next meeting is August 24th and will be via Zoom; more information will be forthcoming with the next agenda; if one uses Zoom, registration is available at the same address as was used for this meeting.**

*Please remember that we need to end the meeting by 5:00 pm so that the library staff may leave the building.

Lee W. Saperstein, Secretary,

NANTUCKET TOWN ASSOCIATION

Treasurer's Report July 27, 2021

Beginning Balance		\$4,079.86
Deposits		
Dues	25.00	
Expenditures		
Nantucket Atheneum	500.00	
End Balance		\$3,604.86



Hello, everyone. I really appreciate the opportunity to talk to you today about light pollution on Nantucket and the organization I recently started to try to do something about it.

I got involved with light pollution issues in Sconset a few years ago as a Sconset Civic Association board member.

My work on light pollution issues in Sconset led to the Nantucket Civic League asking me to coordinate a public forum to raise awareness about light pollution on the whole island, which I did. That was held in March via Zoom.

From that, I realized that there was a lot of support for doing more to preserve our dark skies, so I founded Nantucket Lights.

1



Nantucket Lights is volunteer-run citizen advocacy organization founded in 2021 to preserve Nantucket's heritage of dark skies by raising awareness about light pollution and advocating for environmentally responsible outdoor lighting.

Nantucket Lights is the only organization on the island exclusively dedicated to raising awareness about light pollution and advocating for environmentally responsible outdoor lighting.

It's completely volunteer-run and has a diverse steering committee with representatives from all over the island, some year-rounders and some seasonal residents.

Right now, we're an unincorporated association but will soon be incorporating and seeking non-profit status with the IRS so that we can start fundraising.

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Endorsed by:

**Maria Mitchell Association
Marine Mammal Alliance Nantucket
Nantucket Civic League
Nantucket Conservation Foundation
Nantucket Land Council
Sustainable Nantucket**

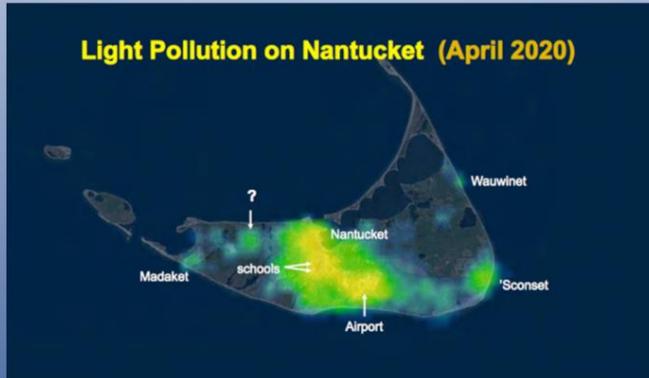
We're only a few months old, but I'm happy to say we've already been endorsed by:

Maria Mitchell Association
Marine Mammal Alliance Nantucket
Nantucket Civic League
Nantucket Conservation Foundation
Nantucket Land Council
Sustainable Nantucket

We're trying to build as broad a coalition as possible and will be encouraging many other organizations to support our mission.

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LIGHT POLLUTION ON NANTUCKET



Source: <https://www.lightpollutionmap.info>

Light pollution on Nantucket has increased
2.4% each year since 2012



Is light pollution really a problem on Nantucket? In a word, yes.

It has increased at a rate of 2.4% each year since 2012, according to satellite data.

That means that it is almost 22% worse today than it was in 2012.

That is very concerning. If we don't do something about that, we may soon lose our heritage of dark skies.

This image shows where light pollution on the island is the worst.

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TYPES OF LIGHT POLLUTION



Light pollution comes in several forms.

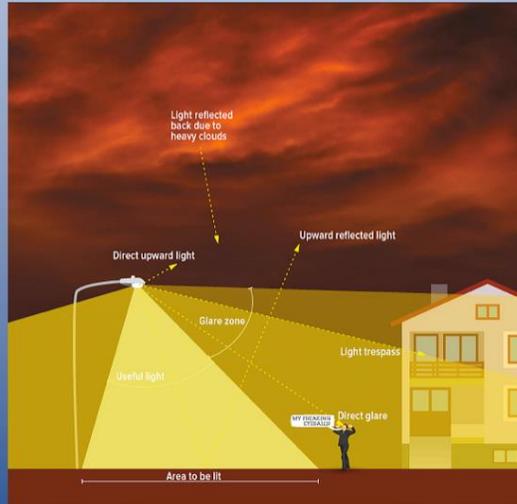
GLARE is when light enters our eyes at an angle that causes pain and makes it harder to see. Have you ever been driving down a lonely road at night, only to be blinded by oncoming high beams that someone forgot to turn off? You have experienced glare.

SKYGLOW is the dome of brightness from lots of artificial light in an area that reduces our ability to see the stars at night.

LIGHT TRESSPASS is when light shines onto someone else's property or home. We can think of light trespass as a private property right and quality of life issue. Who here has been kept awake by light streaming into their bedroom window at night? This is a prime example of light trespass

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TYPES OF LIGHT POLLUTION



This shows how a streetlight can contribute to all three types of light pollution, depending on the fixture and how it's oriented.

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HARM FROM LIGHT POLLUTION

The inappropriate or excessive use of artificial light — known as light pollution — can have serious environmental consequences for humans, wildlife, and our climate.



LIGHT POLLUTION DEVASTATES WILDLIFE.

Plants and animals depend on Earth's daily light and dark cycle to govern life-sustaining behaviors. Research shows that artificial light at night has adverse and even deadly effects on many species.



LIGHT POLLUTION CAN MAKE YOU LESS SAFE.

There is no clear scientific evidence that increased outdoor lighting deters crime. Poor outdoor lighting can decrease personal safety by making victims and property more visible to criminals.



LIGHT POLLUTION WASTES ENERGY AND MONEY.

As much as 50% of outdoor lighting is wasted, which increases greenhouse gas emissions, contributes to climate change, and renders us all more energy-dependent.



LIGHT POLLUTION MAY HARM YOUR HEALTH.

Studies suggest that artificial light at night negatively affects human health by increasing our risks for obesity, sleep disorders, depression, diabetes, breast cancer, and more.



LIGHT POLLUTION ROBBS US OF OUR HERITAGE.

Our ancestors experienced a night sky that inspired science, religion, philosophy, art, and literature. Now, millions of children across the globe will never know the wonder of the Milky Way.

Source: International Dark Sky Association

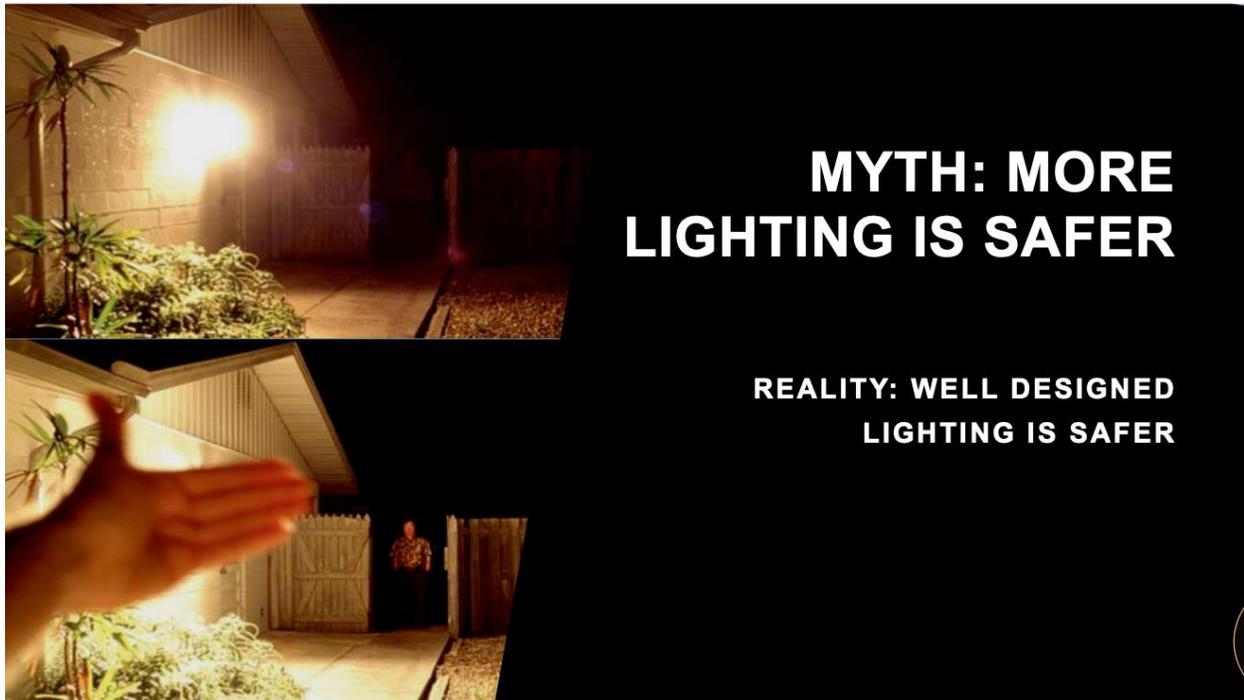


The harm is multi-faceted.

Perhaps most important to many of you is the reduced ability to see stars at night.

It also has adverse and even deadly effects on wildlife and plants, which depend on the Earth's daily light and dark cycle to govern life-sustaining behaviors. It can also have a negative effect on our quality of life, our health, and our safety. Finally, excessive use of artificial light waste energy, a precious commodity on Nantucket.

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Before I go any further, let me say a word about safety. Preserving our dark skies does NOT mean we have to compromise on safety. But the common misconception is that MORE light is always better for safety. That's not always true. As these photos demonstrate, if lighting is too bright or not properly shielded, it can actually make us LESS safe.

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**WE ARE AMONG THE
LUCKY ONES. LET'S
KEEP IT THAT WAY!**

**ONLY 2 OUT OF 10 PEOPLE ON EARTH CAN
SEE THE MILKY WAY**

**99% OF THE USA AND EUROPE LIVE UNDER
LIGHT POLLUTED SKIES**



We are lucky enough to still be able to enjoy the wonder of the Milky Way, shooting stars, and constellations on Nantucket, but they aren't as visible as they used to be because of all the artificial light at night.

And if we don't do something to reduce light pollution here, future generations may not be able to see them at all and I think that would be a real shame.

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**LIGHT POLLUTION
HAS A SIMPLE SOLUTION:
Better Lighting Choices**



There is a simple solution: better lighting choices.

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LIGHT TO PROTECT THE NIGHT
Five Principles for Responsible Outdoor Lighting

IES Illuminating ENGINEERING SOCIETY IDA

USEFUL		ALL LIGHT SHOULD HAVE A CLEAR PURPOSE Before installing or replacing a light, determine if light is needed. Consider how the use of light will impact the area, including wildlife and the environment. Consider using reflective paints or self-luminous markers for signs, curbs, and steps to reduce the need for permanently installed outdoor lighting.
TARGETED		LIGHT SHOULD BE DIRECTED ONLY TO WHERE NEEDED Use shielding and careful aiming to target the direction of the light beam so that it points downward and does not spill beyond where it is needed.
LOW LIGHT LEVELS		LIGHT SHOULD BE NO BRIGHTER THAN NECESSARY Use the lowest light level required. Be mindful of surface conditions as some surfaces may reflect more light into the night sky than intended.
CONTROLLED		LIGHT SHOULD BE USED ONLY WHEN IT IS USEFUL Use controls such as timers or motion detectors to ensure that light is available when it is needed, dimmed when possible, and turned off when not needed.
COLOR		USE WARMER COLOR LIGHTS WHERE POSSIBLE Limit the amount of shorter wavelength (blue-violet) light to the least amount needed.

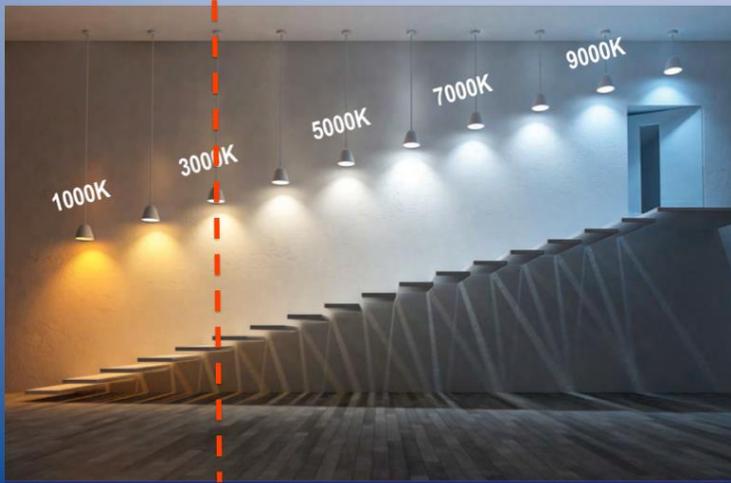
NANTUCKET LIGHTS
TAKE IT DARK

These Five Principles for Responsible Outdoor Lighting were agreed on by the International Dark Sky Association and the Illuminating Engineering Society in 2020. If everybody – residential property owners, businesses, and the Town of Nantucket -- followed these principles, that would go a long way towards preserving our dark skies.

- **All light should have a clear purpose.** Remove any that aren't really needed – like uplighting of trees, shrubs and facades.
- **Light should be directed only to where it is needed.** Use shielding and aim the light so that it points downward and doesn't spill beyond where it is needed.
- **Light should be no brighter than necessary.** Experiment and use the lowest light level needed.
- **Light should be used only when it is useful.** Use timers or motion detectors to ensure that light is available only when it is needed, dimmed when possible, and turned off when not needed.
- **Use warmer color lights where possible.** This requires a bit of explanation. [NEXT SLIDE]

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COLOR TEMPERATURE



The color temperature of lights indicates a light's overall color, or hue, and is measured in units called "Kelvins."

The lower the Kelvin level, the less blue-violet light there is.

The International Dark Sky Association now recommends 2200 Kelvin for most outdoor lighting applications, and no higher than 3000 Kelvin.

Color temperature of light is measured in units called Kelvins.

The lower the Kelvin level, the less blue-violet light there is. And it's the blue-violet light that is harmful.

The International Dark Sky Association now recommends 2200 Kelvin for most outdoor lighting applications. That's roughly equivalent to the amber color of incandescent light bulbs that we all used to use before the introduction of LED lighting.

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COLOR TEMPERATURE



The color temperature is now listed on packaging.



Most packaging for lighting products will show the color temperature and I encourage you to pay attention to that when it comes to your outdoor lighting.

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NANTUCKET'S OUTDOOR LIGHTING BYLAW

Chapter 102 of the Nantucket Code
Available Online



In 2005, Nantucket adopted an Outdoor Lighting Bylaw to help preserve our dark skies.

It needs to be updated and strengthened to be consistent with the Five Principles for Responsible Outdoor Lighting but compliance, at a minimum, with the restrictions already on the books would do a lot to reduce light pollution on the island.

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RESIDENTIAL PROPERTIES

Under the Bylaw, the following are prohibited for residential exterior lighting when the lighting output is more than 600 lumens (about 40 watts incandescent and 7 watts LED), with limited exceptions.

- Fixtures that allow the bulb to be directly visible from adjacent and neighboring properties or public rights-of-way (Section 102-3B)
- Ground-mounted floodlighting and floodlighting that is not down-directed and fully shielded (Section 102-4D)
- Uplighting of an entrance that is not under a roof, eave or other architectural element (Section 102 – 4A(1))
- Uplighting of building facades, trees and shrubs (Section 102-4B and 4C)
- Blinking, flashing, moving, revolving, scintillating, flickering, changing intensity and changing color lights except for temporary holiday displays (Section 102-5C)
- Safety and security lighting that does not have a motion sensor, photocell, or timer to control the duration of nighttime illumination (Section 102-4E)

See the Bylaw for more details and additional restrictions.



Here are some of the things that are prohibited for residential properties. [READ THE BULLETS]

I urge you all to read the Bylaw for more details and comply with it.

Note that the Bylaw exempts all outdoor lighting that is **600 lumens or less** – what does that mean? [NEXT SLIDE]

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LUMENS = LIGHT OUTPUT

BULB BRIGHTNESS		450 LUMENS	800 LUMENS	1100 LUMENS	1600 LUMENS	2600 LUMENS	5800 LUMENS
	LED	6W	9 - 10W	13W	16 - 18W	24W <small>SPECIAL HIGH VOLTAGE LAMPS</small>	45W
	CFL	8 - 9W	13 - 14W	18 - 19W	23W	40W	85W
	Regular INCANDESCENT	40W	60W	75W	100W	150W	300W
	Halogen	29W	43W	53W	72W	150W	300W



Lumens refers to how bright the light is and relates to wattage. However, the lumen output per watt varies depending on the TYPE of bulb, as shown in this chart.

600 lumens – the cap set by the Bylaw-- is between a 40 watt and 60 **watt incandescent** bulb. So to comply with the Bylaw, you need to use a 40 watt bulb in your outdoor lighting fixtures where the bulb can be seen by a neighbor or from a public road.

If you have an **LED** fixture, 600 lumens would be about 7 watts.

Complicated, I know, but the key thing to remember is that when you're shopping for bulbs, look for the level of LUMENS instead of the wattage.

By the way: The exemption of outdoor lighting that is below 600 lumens is a big loophole, in my opinion, because some types of outdoor lighting shouldn't be allowed at all, like uplighting when the purpose is only to be "pretty."

But at least the 600 lumen cap means that all exterior lighting is required to be fairly DIM.

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PENALTY FOR NONCOMPLIANCE

- **\$100 each day** that a violation continues
- Warning from the Lighting Enforcement Officer
- 30 days to come into compliance



The penalty for noncompliance is \$100 a day for EACH violation.
If there are multiple violations, that can add up!

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LIGHTING ENFORCEMENT OFFICER

Marcus Silverstein

508-325-7587, Ext 7021

msilverstein@nantucket-ma.gov



Enforcement of the outdoor lighting bylaw is complaint-based – meaning the Lighting Enforcement Officer doesn't investigate or take any action unless a complaint is

made – so it’s important that everyone is aware of its provisions and report violations of them.

Of course, the more awareness of this bylaw, hopefully there will be more VOLUNTARY compliance.

So one of the main goals of Nantucket Lights is to raise awareness about the bylaw.

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Lighting Examples – Porch Lights

Dark Sky Friendly



Not Dark Sky Friendly *



* If the lighting output is more than 600 lumens,
that violates Nantucket’s Outdoor Lighting Bylaw (Chapter 102-3B)



Here’s an example of a dark-sky friendly porch light and one that isn’t dark-sky friendly.

The fixture shown on the right is pretty typical on Nantucket. Under the Bylaw, if you have that kind of fixture and have an incandescent bulb, the bulb must be 40 watts or less.

But a lower wattage bulb would be even better and is usually enough to light the way. I tried different bulbs and was surprised to find that a 25 watt was sufficient.

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Lighting Examples - Floodlights

Dark Sky Friendly



Not Dark Sky Friendly *



* If the lighting output is more than 600 lumens, that violates Nantucket's Outdoor Lighting Bylaw (Chapter 102-4D)



Floodlights can also be a source of light pollution. The one on the left is dark-sky friendly, and the one on the right isn't. The one on the right is allowed under our Bylaws but only if the lighting output is 600 lumens or less.
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Lighting Examples – Walkway Lights

Dark Sky Friendly



Not Dark Sky Friendly *



* If the lighting output is more than 600 lumens, that violates Nantucket's Outdoor Lighting Bylaw (Chapter 102-4D)



Lights along a walkway can also be problematic. Ideally, they should be shielded and

aimed downward. If they're not, at a minimum, please comply with the Bylaw and make sure the lighting output is 600 lumens or less.

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Lighting Examples – Uplighting



Source: This Old House

- If the lighting output is more than 600 lumens, that violates Nantucket's Outdoor Lighting Bylaw (Chapter 102-4B and 4C)



Uplighting is particularly bad when it comes to light pollution. If we really want to preserve our dark skies, we would do away with this kind of lighting.

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WHERE TO FIND DARK SKY FRIENDLY LIGHTING?

IDA FIXTURE SEAL OF
APPROVAL PROGRAM



The International Dark Sky Association has a fixture seal-of-approval program to help you find dark sky friendly lighting.

On their website, there is a searchable database where you can find dark sky friendly lighting of all types.

When you are buying lighting at local store, you can look for their seal of approval.

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CALL TO ACTION

- **Make sure your own home has dark sky friendly lighting.**
- **Help educate others.**
- **Report suspected violations of Nantucket's Outdoor Lighting Bylaw.**
- **Support the passage of "dark sky" bills that are currently pending before the MA legislature (Change.org petition)**
- **Support the passage of a stronger outdoor lighting bylaw when the time comes.**
- **Join Nantucket Lights!**

Photo by Bill Hoenk, <http://www.billhoenkphotography.com> (used with permission)



Here are some ways that each of you can help reduce light pollution on Nantucket.
[GO THROUGH THE LIST]

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CALL TO ACTION

Organizational level:

- **Adopt a dark sky policy endorsing the Five Principles for Responsible Outdoor Lighting**
- **Address light pollution in the local Area Plan; insist that light pollution be addressed in the Master Plan for Nantucket**
- **Help address the institutional light pollution issues specific to the downtown area**
- **Encourage Sen. Julian Cyr to co-sponsor the pending MA Senate dark bills**

Photo by Bill Hoenk, <http://www.billhoenkphotography.com> (used with permission)



At the organizational level, the Nantucket Town Association Board could do these additional things. [GO THROUGH THE LIST]

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RESOURCES

- Nantucket Lights website, <https://nantucketlights.org>
- Nantucket Lights downloadable flyer
- Nantucket Lights Brochure (coming soon!)
- IDA public outreach materials at <https://www.darksky.org/our-work/grassroots-advocacy/resources/public-outreach-materials>



To help educate others, there is flyer that is linked to on our website that you can download.

We will soon also have a tri-fold brochure available that addresses responsible outdoor lighting for residences. We'll be asking all the neighborhood associations and realtors to help distribute these.

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“ONLY IN THE
DARKNESS CAN YOU
SEE THE STARS”

—MARTIN LUTHER KING JR.

Photo by Bill Hoenk, <http://www.billhoenkphotography.com> (used with permission)



Thank you for your time and I hope I can count on all of you to join the dark sky movement!

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[END]