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Town Planner's Review
Wednesday, July 23, 2025

X. **Other Business**

- **Discussion about Lighting Regulations including color or "temperature" of lighting installations**

➢ I recommend that the board discuss this issue and pursue an amendment to the Site Plan Regulations if appropriate.

Em Friedrichs, James Bubar, and Diana Carroll have spoken about the need for regulations for lighting "temperature" or "color" in order to protect insects. The Town has lighting regulations in the Site Plan Regulations – Article 6 but they do not address this issue other than one reference which is probably out of date. If appropriate, language for this topic can be added to the regulations.

The regulations state:

6.3.17 Lamp specifications

(a) Lamp types shall be selected for optimum color rendering as measured by their color rendering index (CRI), as listed by the lamp manufacturer.

(b) Lamps with a color-rendering index lower than 50 are not permitted. This requirement shall not apply to decorative lighting, which may include colored lamps, such as holiday lighting.

The Planning Board has talked in the past about this issue. The color is measured on the Kelvin scale. See the three images below. Em Friedrichs suggested a target of about 2700 Kelvin (considered yellow or warm white light). Some references even suggest a lower Kelvin of 2200 which is considered amber light. There also seem to be advantages to using LED lights, which are used most commonly now.

There are several factors in deciding optimal lighting temperature: impact on insects and biodiversity, glare, creating a pleasant nighttime atmosphere, reducing energy output, reducing glow on the night sky, as well as cost. If the Town establishes a policy on light temperature it could be expressed through site plan review for private developments, Town lighting, potentially even regulating lights on single family houses through the zoning

ordinance, and encouraging the public to use certain kinds of lights (e.g., advocating through Friday Updates). However, different outdoor situations may call for different lighting treatments.

Lighting scale

2700K – Warm White

This color temperature is most commonly used in homes, restaurants and hotels because of it's warm, cozy and inviting glow – similar to a sunset or candlelight.

3000K – Soft White

A soft white temperature still provides warmth, but a bit more clarity for completing tasks. This color is common in bathrooms and kitchen areas.

3500K – Neutral White

A neutral white mimics natural "middle of the day" light, and is ideal for spaces that require alertness such as office spaces and retail stores. This light is still warm and easy on the eyes, but promotes focused activities.

4100K – Cool White

When an environment requires more precision, a cool white light is ideal. This lighting color is used mainly in professional garages and grocery stores, which need crisp lighting for workers and customers to see detail when working on a car, and the colors of food as correctly as possible.

5000K – Bright White

Some locations require very bright white lighting for ultimate clarity. These spaces include warehouses, sport stadiums, hospitals, ER rooms and other industries where the brightest light is needed to perform tasks correctly.

6500K – Daylight

This color temperature has an apparent blue tone, and mimics natural daylight from the sun. It is commonly used for indoor farming, greenhouses and other agricultural purposes.

(over)

Measurements in Kelvins: