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Use of Solar light on Vast Level Has Become Danger to Human Life

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Absract

Solar Light can affect the health of people in buildings. This goes further than the safety aspects of provided that adequate enlightenment to see by; illumination affects disposition and human circadian rhythms, while poor lighting can cause frown, headaches, eyestrain, aches and thoroughness coupled with poor body bearing or, in tremendous cases, skin circumstances and various types of sight loss. These aspects ought to be considered by designer and house owners and occupiers in order to improve the lit surroundings and use sufficient lighting and lighting controls that meet the recommendations of codes and standards. Various types of illumination can have different impacts depending on their ghostlike, visual and electrical distinctiveness. This paper discusses potential impacts of LED lighting on human health, and is based on a recent assessment of research the most distinctive effects of lighting on person physical condition.

Keywords: Solar Light ,Solar Panel , Vast etc.

Introduction-

Lighting directly influences the performance of visual tasks by making critical details of tasks more or less visible.Insufficient light, high illuminance or luminance contrasts between and across working surfaces, glare, veiling reflections, shadows and flicker, can all make visual tasks difficult to perceive appropriately. These difficulties lead in turn to visual discomfort which may manifest itself through the occurrence of red, itchy eyes, headaches, and aches and pains associated with poor body posture . Additionally, lighting can affect the health of people in buildings .Lighting affects mood and human circadian rhythms; and poor lighting, besides causing visual discomfort and associated effects, can, in extreme cases, lead to skin conditions or various types of sight loss. Lighting using light-emitting diodes is relatively new compared to other types of lighting, and it is important to consider any potential impacts on the health of building occupants whenever lighting is installed. Being directional by nature, can be very bright and glaring. Some very bright may cause retinal damage if viewed directly. It can exhibit flicker, which can cause headaches, eyestrain or epileptic seizures in some people. Night-time exposure to bright sources rich in blue light, such as , can alter the body clock and lead to various health problems. also have benefits compared with other conventional types of lighting, as they do not contain mercury and have lower human toxicity potential, emit little or no UV and These aspects ought to be considered by designers and building owners and occupiers in order to improve the lit environment by using adequate lighting and lighting controls that meet the recommendations of codes and standards.

Experimental and Discussion

Human eyes can adapt to a wide range of light levels from almost total darkness to very bright scenes. Excessive light levels and luminance contrasts can lead to glare. Bright areas within the visual field, particularly when their luminance is much higher than the ambient average, can create glare. Glare can be experienced as disability glare or discomfort glare.Disability glare affects the ability to see and leads to some degree of temporary loss of vision, and is produced by high luminances in a lower luminance scene typically by point light sources such as bright spotlights aiming at the observer's eye, or by large area sources such as a bright luminaire. Disability glare does not itself pose direct health risks, but can lead to indirect effects by weakening vision or the ability to recognise objects, and thus poses obvious safety risks for specific activities.It is the most common form of glare from lighting and can cause eyestrain and other forms of discomfort such as neck- and backache . It has also been found that discomfort glare can adversely affect mood and wellbeing . inflammation of the eyes and lids); dry or watery eyes; itchiness; tense muscles; breakdown of vision, blurred or double vision; headaches or fatigue. Such symptoms can further lead to discomfort and stress . Discomfort glare in interior lighting is quantified by the Unified Glare Rating (UGR), with maximum UGR limits given by standards for various applications that typically range from 13 to 28 s are typically small, directional light sources, which can be very bright and glaring unless they are appropriately positioned or incorporated within non-directional luminaires that contain shielding elements or diffusers appropriately designed to reduce or avoid glare. Diffusing panels may be a source of glare if they appear bright when viewed from a shallow angle. Sometimes retrofit tubes may cause glare because of the optics of the luminaire in which they are inserted. Glare from s installed in buildings can be direct or reflected in glossy surfaces such as a computer screen or shiny display walls, and luminaires need to be set . Despite the directional character of light sources, which makes them very bright, luminaires have become available that have UGR values within the ranges recommended for various applications. panels can be equipped with diffusing panels that limit their UGR index at 19, making them suitable for office lighting, although this usually causes a loss in light output. 2.Optical hazards from Solar Light

Whilst glare does not itself necessarily cause direct damage to and the duration of exposure. before it reaches the retina. Only about 1 to 2% of the longer wavelength UV radiation, UVA, reaches the retina.Although emit little or no UV radiation, they can form a very bright light source, and some types of high power can cause retinal damage if viewed directly. Depending on the luminance, angular size and spectrum, and the duration of exposure, retinal damage can take various forms, from photoretinitis and retinal burns to macular degeneration has published risk group data for their X Lamp series of sources.Most were in risk groups 1 (low risk) or 2 (moderate risk), with one (a high power royal blue lamp) in risk group 3 (high risk). Lamps in this risk group would need to be screened in use so that they could not be viewed directly. A Spanish study reported damage to human retinal cells from three colours of (red, green and blue) but their experiments were carried out at extremely high illuminances (around 34000 lux, around 100 times typical indoor levels).2.Solar Panel In general, depending on individual sensitivity, flicker can have effects ranging from visual discomfort, fatigue and decreased visual performance to the onset of In retrofit situtation Solar Panel flicker

characteristics mainly depend on the Solar Panel driver, and dimming an Solar Panel can induce or increase flicker, particularly when using phase-cut controls or pulse-width modulation . In general, flicker can be minimised by ensuring supply.

2.Solar Panel-

In general, depending on individual sensitivity, flicker can have effects ranging from visual discomfort, fatigue and decreased visual performance to the onset of some forms of epileptic seizures .Critical flicker frequency is the threshold above which flicker can no longer be perceived by human eyes. Research has found that in general flicker can be directly perceived by human eyes at frequencies of and lower. Below , flicker can cause headaches and eyestrain, or even photosensitive epileptic seizures in those who are susceptible . Above , flicker is generally too rapid to be seen by most people, although some studies have found that long-term exposure to higher frequency flickering can lead to potential health problems, such as headaches and eyestrain .Even at frequencies well above may have effects on visual performance or induce symptoms of visual fatigue, eyestrain or headaches.Electroretinogram measurements have found that flicker in the range 100 to 160. Flicker can still have negative effects even when people who are sensitive to flicker are not actually aware of their sensitivity or that the lighting responsible for their discomfort is flickering .

Whilst most conventional electric light sources flicker due to regular fluctuations in the Alternating Current (AC) supply, flicker characteristics can be found in many commercially available Solar Panel sources especially when paired with existing lighting control systems in a retrofit situation. Solar Panel flicker characteristics mainly depend onthe Solar Panel driver, and dimming an Solar Panel can induce or increase flicker, particularly when using phase-cut controls or pulse-width modulation .

In general, flicker can be minimised by ensuring supply stability or by using high-frequency electronic control gear that produces a reduced percentage modulation in light output. Solar Panel are more susceptible to output variations due to power surges and voltage fluctuations. Solar Panel drivers of acceptable quality, however, employ high-frequency switching power supplies that attenuate the component of the mains supply at the output and thus help reduce flicker. Flicker can still occur when dimming Solar Panel lamps by means of mains voltage dimmers and drivers. Direct Current (DC)-based Solar Panel drivers are available that can dim the light output of the Solar Panel lamps to less than 1% without using pulse width modulation stability or by using high-frequency electronic control gear that produces a reduced percentage modulation in light output. Solar Panel are more susceptible to output variations due to power surges and voltage fluctuations. Solar Panel drivers of acceptable quality, however, employ high-frequency switching power supplies that attenuate the component of the mains supply at the output and thus help reduce flicker. Flicker can still occur when dimming Solar Panel lamps by means of mains voltage dimmers and drivers. Direct Current (DC)-based Solar Panel drivers are available that can dim the light output of the Solar Panel

lamps to less than 1% without using pulse width modulation.Solar Panel lighting can exhibit flicker at higher modulation than conventional fluorescent lighting, which may also have health effects at higher frequencies . Hence flicker from Solar Panel used for general lighting such as Solar Panel panels appears to have more negative effects than small Solar Panel used in instrument panels. Moreover, impacts from invisible flicker tend to be stronger in case of visual tasks reqiring precise positioning of eyes, such as when reading, and large Solar Panel display boards viewed from close proximity may induce seizures in people suffering from photosensitive epilepsy .

3.Night Exposure to Solar Light-

Due to the powerful entrainment effect that light has on human circadian rhythms, exposure to artificial light at night impacts on the circadian clock by pushing it back over time. When circadian rhythms are synchronised with the solar day, they cause alertness during the day and sleepiness during the night. When they are desynchronised due to factors such as artificial light at night, jet lag or shift work patterns, alertness and sleepiness may occur at the wrong times, and sleepiness However, any type of light can do this; it is not something which is specific to Solar Panels compared to other light sources.

Whereas the body's level of melatonin is frequently used as a biological marker for circadian impact, the minimum level of light which can result in a change is still being studied. In an experiment by , exposure to light levels of more than 200 lux in a room before bedtime was found to have a measurable effect on melatonin levels compared to a group exposed to dim light of less than 3 lux. . Light from a television was not found to have the same effect . suggest that a reasonable and conservative working threshold for suppressing melatonin by light at night would be about 30 minutes exposure to 30 lux the eye for a white light source. However, any given threshold value would vary with the spectral irradiance of different light sources. The spectral composition of a light source affects the degree to which it may impact on sleep. If a light source generates a lot of its light in the blue wavelengths, commonly taken between 400 and 500 nm , this will have a greater potential to keep us awake since blue light appears to affect alertness, body temperature and heart rate . Suppression of melatonin, a key marker of circadian rhythm, occurs most strongly between 446 and 477 nm meaning that this particular light source would be likely to elicit alertness,

Conclusion-

Night. A common type of cool white chip which comprises a blue light with a yellow phosphor coating produces significant light output in the 460 to 500 nm range One of the strengths, and complications, of is that they can be manufactured to generate light in very specific areas of the spectrum, even in a light which appears white to the naked eye. This means that will all have their own slightly different spectral distribution, and only basic generalisations are possible. Light, including blue light, at the wrong times has been associated with a number of long-term health effects. Czeisler states that because solid-state white light is typically rich in blue light, and the

intrinsically photosensitive retinal ganglion cells of the retina are most sensitive to blue and blue-green light, night-time exposure to is typically more disruptive to circadian rhythms, melatonin production and sleep than incandescent lighting. However, bluelight from sources during daytime can also be used to correct disrupted sleep and provide a countermeasure to desynchronised circadian rhythms or diminished alertness . Studies by Glickman and Strong compared blue and red in light therapy treatment. The findings support the idea that shorter wavelength visible light (450 to 500 nm) is key in the treatment of SAD.

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