

Mission Hill K-8 Pilot for Addressing Light Sensitivities in One Classroom

By Lisa Jeanne Graf, 2019 - 2021

In 2018 I realized that my daughter Beatrice had a sensitivity to bright light and was particularly impacted by fluorescent lights. Because of regular migraines she wore special eyeglasses with pink tints to cut down on the number of her headaches. In 2019 I decided to research alternatives to fluorescent lights in her classroom, so that her glasses would not be, as necessary. Below is a list of the options that I found for her, as well as for her teachers and classmates (some of whom also had light sensitivities).

Possible Solutions:

1. Have the fluorescent tubes in the overhead lights be a "warm white" color.
 - Fluorescent bulbs have a color temperature marked on it, which is most commonly 4000K. Replacement tubes could be marked 3000K which is a warm white color. Warm white light is more comfortable for those with light sensitivities.
2. Add floor lamps that use LED light bulbs or GE soft white bulbs. Use these lamps and do not turn on the fluorescent lights. Some options include lamps from the following companies:
 - fullspectrumolutions.com
 - lamppicker.com
 - Bingham
3. Use natural light when possible through open windows instead of fluorescent lights.
4. Place light covers over the fluorescent lights to cut down on the glare when they are on. These can be purchased from:
 - schoolspecialty.com
(suggested by Mission Hill K-8 School Leader Geralyn McLaughlin)
5. Purchase light sensitivity glasses. These can be purchased from:
 - somnilight.com
6. Remove the fluorescent tubes and replace them with LED tubes:
 - efficiencyma@eversource.com can do this work
Website: <https://www.masssave.com/en/learn/business/industry-solutions/>
Phone: 1-781-441-8462
Initial email contact: efficiencyma@eversource.com
Additional contact: steven.grattan@eversource.com
 - Sign-off needs to come from the city of Boston's Environment Department for this work to be allowed. I contacted David Musselman, david.musselman@boston.gov and Joseph Larusso, joseph.larusso@boston.gov to learn how to move forward with this proposal.
 - I was told that this work could not happen in early 2020 but was possible later. Here is a [link](#) to the letter I received.

Resolution:

Because BPS, and the City of Boston were not interested in replacing the overhead lights with LED overhead lights at that point in time, the solution that was chosen by the school community was to purchase light covers and buy floor lamps.

Recommendations:

When students return to in-person teaching primarily, I recommend that all the classrooms at Mission Hill K-8 with students and/or staff with light sensitivities have light covers over the florescent lights and to purchase floor lamps with LED light bulbs or GE soft white bulbs.

Moving forward, I recommend that the whole school has all their fluorescent tubes replaced. Also, in time this direction could be rolled out throughout the entire district. Besides the benefits to students and staff, it would also benefit the environment.

References:

MA-CHPS Green School Guidelines

https://www.massschoolbuildings.org/sites/default/files/edit-contentfile/Guidelines_Forms/Guidelines_Policies/MA-CHPS_Green_School_Guidelines_2009.pdf

Design for Special Education

<https://www.nacarchitecture.com/publications/DesignForSpecialEducation.pdf>

sitlersledsupplies.com

Benefits of LED Lighting in Special Needs Classrooms

<https://sitlersledsupplies.com/2069-2/>

sitlersledsupplies.com

LED Lighting School Lighting: a Complete Guide

<https://sitlersledsupplies.com/led-school-lighting-a-complete-guide/>

core.ac.uk

Classroom Lighting Design for Student with Autism Spectrum

<https://core.ac.uk/download/pdf/5170701.pdf>

blog.schoolspecialty.com

Affordable Options for Calming Classroom Lighting

<https://blog.schoolspecialty.com/affordable-options-calming-classroom-lighting/>

blog.litetronics.com

<https://blog.litetronics.com/blog/making-classroom-lighting-learner-and-sensory-friendly>

How Changing My Classroom Lighting Made a Big Impact on Kids' Learning

<https://www.weareteachers.com/classroom-lighting/>

Online Research from Twitter:

@autistamatic:

Light bulbs for desks:

https://www.amazon.co.uk/dp/B00XHNDCIO/ref=cm_sw_r_cp_apai_ulx8Db85DFQCR

Light tubes to replace fluorescent tubes:

https://www.amazon.co.uk/dp/B07B6K339T/ref=cm_sw_r_cp_apai_Jtx8DbZH0K42P

@stateandtrait:

“Would it help to replace the current fluorescent tube for a "warm white" one? The current bulb will have the colour temperature marked on it, but is probably 4000K (warm white is 3000K)”.

Earlier Research:

http://lgraf.com/BPS/Lighting_proposal.pdf