

A lot of people would like to be wine connoisseurs and have the time to taste all the great wines of the world. But most of us have to spend time working to make money to hope to purchase a few good bottles that we can tuck away or hold for a special occasion.

I was recently at one of those “high end” grocery stores looking for a fine bottle of wine to have with dinner with some friends that were coming over. We are in the lighting business so I had to look up and I noticed that a lot of the wines were under fluorescent lighting. This confused me a bit due to the “high end” nature of this national grocery store chain but made me realize that most

on the shelf for months on end. A narrow range of light wavelengths within the Light Spectrum is responsible for these adverse reactions (see graph below). Some glass manufacturers have suggested “filtering” out these colors by making amber bottles but we are not sure wine specialist would buy these bottles—people do not like change. Lighting in the 340 and 380 nano meter (nm) range otherwise known as Ultra Violet and 440 nm (Blue) are most commonly cited as being critical to producing “Light Strike” reactions. Some of these colors are in the visible part of the spectrum emitted from Fluorescent lighting and can cause the problem.



# Light-Strike and Wine

*learn how certain types of light can damage wine*

people do not really know much about the light that is above our heads. Fluorescent lighting, while it aims to be Green and energy efficient, not only uses hazardous Mercury (Hg) but it does emit a bit of Ultra Violet light. Yes, there is a reason that doctors are now telling people to stay away from Tanning Beds - UV is not great for humans. But alas we were talking about wine so we will stay on subject.

Glass offers wine some protection from ultraviolet light that can affect wine quality but not always enough to protect against “Light Strike”. The mechanism of “Light-Strike” on wine is complex but now well understood. Certain colors of light initiate chemical reactions within the wines which produce unpleasantly tasting and smelling compounds.

White wines are more susceptible to degradation by light than others, but all are ultimately affected by this phenomena. “Light Strike” damage will occur under normal artificial lighting and this may be the principal mode of exposure for many wines. Artificial lighting can produce a discernable change in wine bottled in clear glass within a few hours.

Most conventional stores use ways of reducing intensity or modifying the direction of light in an attempt to increase the shelf life - after all some of these bottles will sit

be moving up and winning wine awards around the world. At AoTuroaLED in Auckland New Zealand we manufacture LED lighting that looks exactly like the warm colors of the lights that used to be used that bring out the richness of colors used in the wine labeling industry as well as being very energy efficient - our lighting solutions are 50% less power to as much as 90% less power. So as energy prices continue to rise and we all have less money to spend on fine wines I think we can all say that we want to make sure the wine that we buy from the local high end grocery store to impress our friends is not going to be a victim of “light strike”. Our intention of making an impression with friends could end up with a foul taste in their mouths.

So the AoTuroaLED systems incorporate Nichia of Japan patented white LEDs. This company has perfected the art of making LED lighting match the intensity or brightness, color of white light, and the color rendering ability. They have additionally mastered how to “block” those harmful Ultra Violet and Blue wavelengths to produce a pleasant light that works well with wine. So from the vineyards in France and California, to the rolling hills of Australia, Chile, South Africa, and New Zealand - AoTuroaLED lighting technology can be a way of enabling you or the stores you buy from to take that next step forward in being “Green” by consuming less energy and ultimately in preserving the quality of the fine wines.

Come visit [www.AoTuroaLED.co.nz](http://www.AoTuroaLED.co.nz), our lighting specialist will show you how we have solutions to retrofit fluorescent lighting. And so now to all the wine enthusiasts - over that next Pinot Noir or Chardonnay - educate your friends on “light strike” and teach them to look up and notice what type of lighting is used... and then give AoTuroaLED a go!

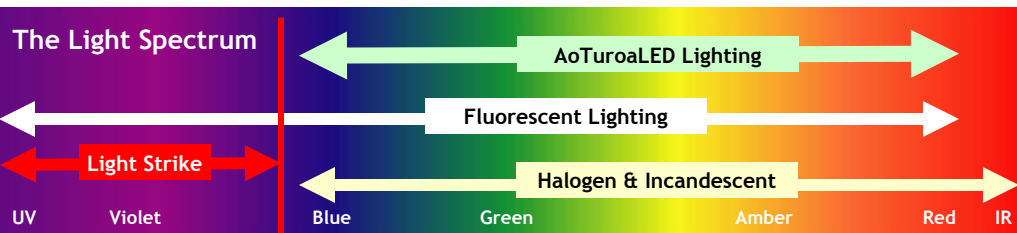


*Wine in stores are usually stored under fluorescent lighting which plays a part in Light Strike. AoTuroaLED kits retrofit fluorescent quickly to fix this problem.*



So if colored glass will not be readily accepted by consumers why not just make black glass? I immediately think of several high end champagnes and realize the bottles are black. But then once again this change in the wine industry may be radical.

So then there comes the logical solution. But this may only be logical to AoTuroaLED from New Zealand, the youngest country on earth, that seems to



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