

The Status of Fluorescent Lamps in Critical Color Matching and Viewing Applications Update October 14, 2022

GTI is the leading provider of lighting systems for critical color viewing. Since the beginning, in 1975, we have operated with the highest amount of integrity. We do not release products without a thorough testing and beta process, all of our products conform to industry standards, and we don't overhype the performance of our products - we let their performance speak for itself. In other words, we are not just another supplier of lighting booths; we are a company that you want to partner with to help make your business successful.

Recently there has been a lot of noise about banning fluorescent lamps for use in color viewing booths. GTI would like to try to clear up this confusion.

- 1. There is not a plan in place by the US federal government or Department of Energy to ban fluorescent lamps.
- 2. In conjunction with our manufacturing partner GTI controls the production and inventory of our lamps. We are confident that there will be an adequate supply of fluorescent lamps for many years to come.
- 3. The European Union has published a Restriction of Hazard Substances (RoHS) directive that states that lamps that contain mercury and are to be used for general purpose lighting may not be put in use after August 24, 2023. This does not apply to lights used in color viewing booths.
 - a. There is an exemption until February 24, 2025 for lamps manufactured for critical color viewing applications. This includes the graphic arts (D50) and industrial color (D65) markets.
 - b. GTI believes that this exemption will be further extended due to the specialized nature of the lamps and the niche market that they serve.
 - c. The decision on exemptions and on the duration of possible exemptions should take into account the availability of substitutes and the socioeconomic impact of substitution. While there are numerous LED light sources on the market, nearly all of them do not comply with the relevant lighting standards, and therefore, are not legitimate substitutions for fluorescent daylight color viewing systems.
- 4. <u>Directive 2011/65/EU</u> dated June 8, 2011 is the primary EU regulation relating to restricting hazardous substances in electrical and electronic equipment sold in the European market.
 - a. Article 4(1) states that EEE (Electrical and Electronic Equipment) placed on the market does not contain the restricted substances contained in Annex II.
 - b. Mercury greater than 0.1% concentration is listed in Annex II as a restricted substance.
 - c. As stated in the <u>Safety Data Sheet, GTI's fluorescent lamps</u> contain <0.1% of mercury concentration.
 - d. In conclusion, one can assume that GTI's lamps will not be restricted in the EU.



- Commission Regulation (EU) 2019/2020 dated October 1, 2019 specifies ecodesign requirements for light sources used in the EU.
 - a. This regulation specifically exempts "...light sources ... for laboratory use or quality control applications for the evaluation of coloured surfaces and materials under standard viewing conditions (e.g. standard illuminants)..."

<u>GTI's LED solutions</u> currently include our complete line of D50 CVX viewing systems and any Graphiclite luminaire that uses 48" lamps. We also offer 3000K, 3500K, and 4000K LED lamps for multi-source viewers to assist with metamerism testing and the viewing of products in their end user environments.

Obviously, GTI is excited about the potential of LED technology and looks forward to further implementing it into our product portfolio as it matures and stabilizes. You can be sure that when we release a new product it is 100% ready and will meet industry viewing standards.

We encourage you to learn about the benefits of LED lamps (longer life, less energy usage, and quicker warm up time), conduct an ROI analysis, and then implement LED in your workflow when you are ready to. There is plenty of time to make an informed decision. If you have any questions about GTI's LED products, please contact us.

Robert McCurdy

President

GTI Graphic Technology, Inc.