

Email received on June 15, 2010 from Kei Haraguchi.

Dear Alex,

This is Kei Haraguchi from Nichia corporation.

We, Nichia, would like to comment on the Energy Star Program for Luminaires draft version 1.

1. Color shift over time

At 6000 hours of LM80 test data, the proposed criteria, which is $uv < 0.002$ or $uv < 0.001$ is very tough to achieve for almost all LED products in this industry.

FYI. Please see the attached LM80 test result of one of Nichia LED, which is very good at lumen maintenance.

This criteria requires LEDs' junction temperature very low, it means lighting fixture needs huge heatsink or very low forward current. It affects the cost of light.

Nichia recommends one of each below.

- a) Moderating the criteria,
- b) Not using the criteria until the color estimation method come up or
- c) Not considering the initial shifting/instability, such as by 1000 hours, but considering after 1000 hours.

2. NVLAP accreditation for LM80

Since LM79 handling absolute optical value for SSLs, NVLAP accreditation process makes great sense.

But, LM80 is handling life testing and it handles mainly relative value.

Therefore, NVLAP accreditation for LM80 lab is not so important as LM79, and accreditation for LM80 labs may not be needed.

If you have any questions or concerns, please let me know.

Best regards,
Kei

Kei Haraguchi
Nichia America Corporation