Dear Richard,

I have few comments to DOE ENERGY STAR proposal for SSL luminaries:

- 1./ On page 4, minimum operating temperature is set to -20C. EU standards call for -25C. Winter temperatures in north USA may go even under -25C. I think it should be changed to -25C.
- 2./ On page 5, notes for the calculation of Luminaries Efficacy should clearly state that efficacy calculation must include power unit/driver losses. In some cases luminaries are 12V devices with external plug in power unit with efficiency of 60% and less. Therefore if luminous efficacy of the fixture is lets say 10 lm/W, luminaries system luminous efficacy is 6 lm/W
- 3./ I truly believe you should revise system luminous efficacies. We achieved substantially higher efficacies more than year ago. Energy Star should be a tough benchmark for luminaries manufactures. What I see in your proposal is very easy target. I truly believe all efficacies should be increased by at least 25%.

I look forward to your quick response. If you should have any additional questions, please call me at (763) 424-3702.

Best Regards,

Zdenko Grajcar, Vice president of R&D Lumificient Technologies, LLC. Product development dept. 8752 Monticello Lane N. Maple Grove, MN 55369

Phone: (763) 424-3702 Fax: (763) 390 3135