Reviewer’s report

Title: Retinal specific measurement of dark-adapted visual function: A validation study

Version: 1 Date: 9 November 2010

Reviewer: Trevor Lamb

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Minor Essential Revisions

This paper provides useful information on modifications to a commercial instrument to enable its use as a scotopic microperimeter; furthermore, the ability of the modified instrument to localize the foveal rod scotoma is demonstrated.

The present title of the paper is uninformative; it would be desirable for the title to indicate explicitly that the paper describes modifications to a commercial microperimeter to permit scotopic measurements.

It would be helpful to the reader if the authors could provide further information for those unfamiliar with the two instruments (especially the HFA). Thus, Figure 2 has no explanation, and it will be unclear to someone unfamiliar with the instruments what the numbers and images represent, and how the two are correlated for a given observer. On page 2, paragraph 4 is written in HPA jargon; thus, the uninitiated reader may have no idea what “size III” targets are, or what a “4-2 strategy” is.

Fixation target: Surely it wasn’t 15 degrees. What color was it (red)? Wouldn’t it be best to use a deep-red point-source as fixation target, when testing the scotopic system?

Page 5, paragraph 7: “lowest threshold (lowest sensitivity)”. Haven’t you got these reversed?

Page 6, paragraph 5: “which can be measured is 20 log units”. Surely you mean “dB”.

In Figure 1, the difference between dashed and solid lines is unclear; presumably the latter actually represent arrows.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:

I declare that I have no competing interests.