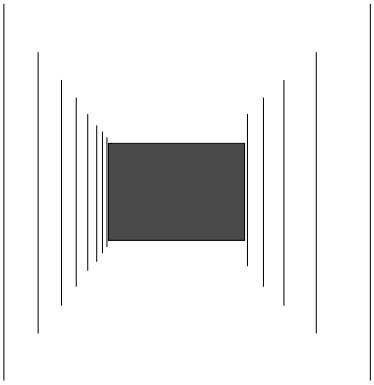

Centre for Building Performance Research

SIMULATION QUALITY WEB SITE?

Michael Donn

ABSTRACT

In early 2005, the CIE produced a set of standardized *Test Cases To Assess The Accuracy Of Lighting Computer Programs* (CIE TC.3.33 Final Technical Report - April 7, 2005). These test cases promise to do the same thing for lighting performance simulation that the BESTEST (www.iea-shc.org/task12 or *Building Energy Simulation Test (BESTEST) and Diagnostic Methods, R. Judkoff and J. Neymark, February 1995, may be ordered from: NREL, Document Distribution Service, 1617 Cole Blvd., Golden, CO 80401, USA. Fax: 1-303-275-4053.)* This presentation explores how these tests might form the basis of a suite of building performance quality assurance measures.

The CIE tests consist of a set of 'analytical solutions' to simple lighting situations in 'test cells' plus a set of carefully measured data from a similar small test cell like room. The Quality Assurance role these tests play at present is in the continued diagnosis and careful design of software: as new versions are released they can be re-run against these benchmarks to ensure that adding feature x has not caused a problem in another part of the program.

The issue of Quality Assurance addressed by this paper is focused squarely on the user of software. It focuses therefore on the question of how to provide assurance to the general practitioner that the predictions of their software are a dependable prediction of performance in reality.

The paper suggest that the tests might need to be supplemented with data on ease of use and ease of modeling and speed of understanding. It also notes that comparative costs of software and the expertise to run the programmes would need to be updated.

An on-line web based system is posited as the likely outcome of this exercise. The proposal is to build a system that is like a lot of the web, self limiting. A system where the users maintain and develop the standards – police any mis-use and contribute their own tests…