

March 30, 2015

California Energy Commission  
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California Energy Commission

**DOCKETED**

**15-BSTD-01**

TN 75547

MAR 30 2015

**Re: Docket # 15-BSTD-01 Proposed Revisions to 2016 NA7.6.1  
Automatic Daylighting Controls Acceptance Tests.**

**As currently written:**

*NA7.6.1 Automatic Daylighting Controls Acceptance tests*

**Suggestion:**

Capitalize the word “tests” because it is of equal importance, and possibly even more important than the other words in the title because this whole section about testing.

**As currently written:**

***NA7.6.1.2 Functional testing***

*For buildings with up to five (5) photocontrols, all photocontrols shall be tested. For buildings with more than five (5) photocontrols, sampling may be done on spaces with similar sensors and cardinal orientations of glazing.*

**Comment:**

1. The quantity of five for a sampling group seems to be arbitrary.

**Suggestion:**

The sample quantity should be based on the quantity of spaces in the building. Recommend following guidelines used in the commissioning industry such as the International Performance Measurement & Verification Protocol, IPMVP.

**As currently written:**

**NA7.6.1.2 Functional testing**

*If the first photocontrol in the sample group passes the functional test, the remaining building spaces in the sample group also pass.*

**Comment:**

1. How is it known that all of the remaining spaces in the sample group would also pass the test.

**Suggestion:**

Change “the remaining building spaces in the sample group also pass.” to read as “the remaining building spaces in the sample group **will be assumed to** also pass.”

**As currently written:**

**NA7.6.1.2 Functional testing**

*If the first photocontrol in the sample group fails the functional test, the rest of the photocontrols in the group shall be tested.*

**Comment:**

1. This places the test technician in an awkward position. Is he going to have to assume the financial losses of having to test much more than what was included in his lump sum fee, or is the client going to have to pay more than they had expected.

**Suggestion:**

After the first failure the acceptance testing should stop. The failed component shall be repaired, replaced or adjusted. During this time the rest of the system could also be verified. The acceptance testing would resume on a different space and if it passes then the remaining building spaces in the sample group will be assumed to also pass.

**As currently written:**

**NA7.6.1.2 Functional testing**

*Test the reduction in lighting power . . . using one or the following two methods.*

*Method 1: Illuminance Measurement*

*(b) No daylight test*

*(c) Full daylight test*

*(d) Partial daylight test*

*Method 2: Current measurement*

*(b) Full output test*

*(c) Minimum output test*

*(d) Partial daylight test*

**Comment:**

1. Section 130.1(d)2Diii states “the combined illuminance from the controlled lighting and daylight shall not be less than the illuminance from controlled lighting when no daylight is available.”
2. Section 130.1(d)2Div states “when the illuminance received from the daylight is greater than 150 percent of the design illuminance received from the general lighting system at full power, the general lighting power in that daylight zone shall be reduced by a minimum of 65 percent.”
3. Section 130.1(d) does not mention a partial daylight test.
4. The partial daylight test does not provide any valuable information.
5. The partial daylight test is very difficult to perform.
6. The partial daylight test increases the cost of the automatic daylighting acceptance test by 50% without a legal justification.

**Suggestion:**

Delete the partial daylight test.

Thank you for your consideration of these comments.

Respectfully submitted,

A handwritten signature in cursive script that reads "Richard N. Miller".

Richard N. Miller, PE, LEED AP, IES, IA EI, IEEE, LC  
President, RNM Engineering, Inc.