

Public Review Draft

Proposed Addendum ah to Standard 189.1-2017

Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings

First Public Review Draft (August 2019)
(Draft Shows Proposed Changes to Current Standard)

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(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

Foreword

Dwelling unit lighting efficacy is regulated in Section 9.4.4 of ASHRAE 90.1 and relies on an efficacy requirement that does not reflect the availability of highly efficient products in the market.

This proposed addendum to ASHRAE 189.1 increases the efficacy requirements for light sources, as well as the percentage of light sources in dwelling units that must meet the higher requirements. The proposal reflects the continued effort to develop standard 189.1 as a high-performance extension of base codes.

This proposal exceeds the existing EnergyStar Standards currently referenced in 189.1 in all cases except for omnidirectional lamps with a Color Rendering Index (CRI) under 90. These are lamps that are intended for utility or outdoor applications where color rendering is not important and are not appropriate to indoor residential applications covered in this section of the standard. The proposed approach would group all lamps and luminaires under a common set of requirements to provide better clarity and alignment with 90.1.

The values in this addendum were selected with consideration of published averages for directional and omnidirectional lamps (77 lm/W and greater than 90 lm/W, respectively, per California's JA8 lighting dataset). Both lamp types have an average CRI below 95, therefore a threshold of 75 lm/W was deemed appropriate to accommodate higher CRI lamps. This proposal also includes an exception for appliance lighting since that lighting is often subject to more demanding operating conditions.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Addendum ah to 189.1-2017

Add new Section 7.4.6.2 and renumber remaining sections

7.4.6.2 Dwelling Units. This section supersedes ANSI/ASHRAE/IES Standard 90.1, Section 9.4.4. Not less than 90% of the permanently installed lighting serving *dwelling units* shall be provided by *lamps* with an *efficacy* of not less than 75 lm/W or *luminaires* with an efficacy of not less than 55 lm/W.

Exception to 7.4.6.2: Lighting attached to or integral to appliances.

7.4.6.23 Occupancy Sensor Controls with Multilevel Switching or Dimming ...

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Revise Section 7.4.7.3.1 (e) as follows:

e. Lighting

1. Integral LED lamps not subject to Section 7.4.6.2: ENERGY STAR Program Requirements for Integral LED Lamps