

# Public Review Draft

Proposed Addendum ap to Standard 189.1-2017

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

First Public Review (February 2020)  
(Draft Shows Proposed Changes to Current Standard)

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## Foreword

This addendum updates the outdoor light pollution requirements in Chapter 5. It removes the outdoor lighting requirements that are provided in ANSI/ASHRAE/IES Standard 90.1 because they are provided in Sections 7.4.6 of this standard. This further allows simplification of the section numbers.

*[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 ap to 189.1-2017

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*Revise Section 5.3.6 as follows:*

### 5.3.6 Reduction of Light Pollution

~~5.3.6.1 General.~~ Exterior lighting systems shall comply with ANSI/ASHRAE/IES Standard 90.1, Sections 9.1, 9.4.1.4, 9.4.2, 9.4.3, and 9.7, and with Sections 5.3.6.2 and 5.3.6.3 of this standard.

#### 5.3.6.1 ~~5.3.6.2~~ Backlight and Glare

- a. ~~All building~~ Building mounted luminaires located less than two mounting heights from any property line shall meet the maximum allowable glare ratings in Table ~~5.3.6.1A~~ 5.3.6.2A.
- b. All other luminaires shall meet the maximum allowable backlight and glare ratings in Table 5.3.6.1B ~~5.3.6.2B~~.

~~5.3.6.32 Uplight.~~ All ~~exterior~~ Exterior lighting shall meet one of the following uplight requirements:

- a. Exterior luminaires shall meet the maximum allowable Uplight Ratings of Table ~~5.3.6.1B~~ 5.3.6.2B.
- b. Exterior lighting shall meet the uplight requirements of Table ~~5.3.6.2~~ 5.3.6.3.

Exceptions to ~~5.3.6.2~~ 5.3.6.3:

1. Lighting in LZ3 and LZ4, solely for uplighting structures, building façades, or landscaping.
2. Lighting in LZ1 and LZ2, solely for uplighting structures, building façades, or landscaping.

provided the applicable lighting power densities (LPDs) do not exceed 50% of the *lighting power allowances* in ANSI/ASHRAE/IES Standard 90.1, Table 9.4.2-2.

Exceptions to ~~5.3.6.1~~ and ~~5.3.6.2-5.3.6.2~~ and ~~5.3.6.3~~:

1. Specialized signal, directional, and marker lighting associated with transportation.
2. Advertising signage or directional signage.
3. Lighting integral to equipment or instrumentation and installed by its manufacturer.
4. Lighting for theatrical purposes, including performance, stage, film production, and video production.
5. Lighting for athletic playing areas.
6. Lighting that is in use for no more than 60 continuous days and is not reinstalled any sooner than 60 days after being uninstalled.
7. Lighting for industrial production, material handling, transportation *sites*, and associated storage areas.
8. Theme elements in theme/amusement parks.
9. Roadway lighting required by governmental authorities.
10. Lighting classified for and used in hazardous locations as specified in NFPA 70.
11. Lighting for swimming pools and water features.

*Revise numbering of Tables 5.3.6.2A, 5.3.6.2B and 5.3.6.3 to 5.3.6.1A, 5.3.6.1B and 5.3.6.2.*