

**ANSI/ASHRAE/ICC/USGBC/IES Addendum az to
ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2020**

Standard for the Design of High-Performance Green Buildings

Except Low-Rise
Residential Buildings

The Complete Technical Content of the International Green Construction Code®

Approved by ASHRAE and by the American National Standards Institute on May 31, 2023; by the International Code Council and the the Illuminating Engineering Society on May 22, 2023; and by U.S. Green Building Council on May 29, 2023.

This addendum was approved by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the standard. Instructions for how to submit a change can be found on the ASHRAE® website (www.ashrae.org/continuous-maintenance).

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ASHRAE obtains consensus through participation of its national and international members, associated societies, and public review.

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FOREWORD

Addendum az updates the building performance factors in Table 7.5.2.2.1, which was added in published Addendum aj to Standard 189.1-2020, available on the ASHRAE website at www.ashrae.org/addenda.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~striking through~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes.

Addendum az to Standard 189.1-2020

Modify Table 7.5.2.2.1 as shown.

Table 7.5.2.2.1 Building Performance Factors for Emissions (BPF_E) and Renewable Fraction (RF_E) for Use with LRMER

	Climate Zone	Building Type								
		Multifamily	Healthcare/ Hospital	Hotel/ Motel	Office	Restaurant	Retail	School	Warehouse	All Others
Building Performance Factor for Greenhouse Gas Emissions	0A/1A	0.88	0.79	0.83	0.57	0.70	0.53	0.66	0.25	0.67
	0B/1B	0.88	0.79	0.83	0.57	0.70	0.53	0.66	0.25	0.67
	2A	0.86	0.77	0.80	0.57	0.70	0.48	0.65	0.24	0.65
	2B	0.82	0.76	0.84	0.58	0.73	0.49	0.67	0.25	0.66
	3A	0.88	0.74	0.79	0.57	0.74	0.53	0.68	0.32	0.67
	3B	0.79	0.78	0.85	0.60	0.76	0.54	0.67	0.26	0.68
	3C	0.71	0.84	0.94	0.55	0.79	0.53	0.80	0.21	0.69
	4A	0.77	0.74	0.78	0.51	0.75	0.57	0.57	0.42	0.64
	4B	0.73	0.77	0.83	0.57	0.78	0.58	0.64	0.35	0.67
	4C	0.61	0.80	0.86	0.54	0.81	0.75	0.77	0.45	0.70
	5A	0.72	0.77	0.78	0.53	0.77	0.56	0.60	0.52	0.66
	5B	0.66	0.76	0.81	0.57	0.81	0.66	0.65	0.48	0.68
	5C	0.60	0.81	0.84	0.55	0.82	0.76	0.68	0.41	0.69
	6A	0.68	0.78	0.77	0.52	0.79	0.68	0.59	0.57	0.67
	6B	0.60	0.79	0.79	0.52	0.81	0.72	0.58	0.53	0.67
	7	0.63	0.79	0.77	0.49	0.81	0.62	0.57	0.50	0.64
	8	0.72	0.78	0.78	0.55	0.79	0.57	0.60	0.46	0.66
	0A	<u>0.70</u>	<u>0.63</u>	<u>0.67</u>	<u>0.51</u>	<u>0.63</u>	<u>0.43</u>	<u>0.55</u>	<u>0.22</u>	<u>0.54</u>
	0B	<u>0.70</u>	<u>0.63</u>	<u>0.67</u>	<u>0.51</u>	<u>0.63</u>	<u>0.43</u>	<u>0.55</u>	<u>0.22</u>	<u>0.54</u>
	1A	<u>0.70</u>	<u>0.63</u>	<u>0.67</u>	<u>0.51</u>	<u>0.63</u>	<u>0.43</u>	<u>0.55</u>	<u>0.22</u>	<u>0.54</u>
	1B	<u>0.70</u>	<u>0.63</u>	<u>0.67</u>	<u>0.51</u>	<u>0.63</u>	<u>0.43</u>	<u>0.55</u>	<u>0.22</u>	<u>0.54</u>
	2A	<u>0.70</u>	<u>0.60</u>	<u>0.64</u>	<u>0.47</u>	<u>0.64</u>	<u>0.39</u>	<u>0.53</u>	<u>0.21</u>	<u>0.52</u>
	2B	<u>0.68</u>	<u>0.59</u>	<u>0.73</u>	<u>0.49</u>	<u>0.67</u>	<u>0.39</u>	<u>0.57</u>	<u>0.22</u>	<u>0.54</u>
	3A	<u>0.72</u>	<u>0.58</u>	<u>0.66</u>	<u>0.47</u>	<u>0.69</u>	<u>0.42</u>	<u>0.56</u>	<u>0.28</u>	<u>0.55</u>
	3B	<u>0.64</u>	<u>0.60</u>	<u>0.73</u>	<u>0.49</u>	<u>0.70</u>	<u>0.43</u>	<u>0.56</u>	<u>0.22</u>	<u>0.55</u>
	3C	<u>0.57</u>	<u>0.63</u>	<u>0.78</u>	<u>0.44</u>	<u>0.73</u>	<u>0.41</u>	<u>0.70</u>	<u>0.17</u>	<u>0.55</u>
	4A	<u>0.63</u>	<u>0.58</u>	<u>0.65</u>	<u>0.43</u>	<u>0.69</u>	<u>0.44</u>	<u>0.45</u>	<u>0.37</u>	<u>0.53</u>
	4B	<u>0.59</u>	<u>0.59</u>	<u>0.66</u>	<u>0.47</u>	<u>0.73</u>	<u>0.45</u>	<u>0.53</u>	<u>0.31</u>	<u>0.54</u>
	4C	<u>0.51</u>	<u>0.60</u>	<u>0.76</u>	<u>0.43</u>	<u>0.75</u>	<u>0.57</u>	<u>0.65</u>	<u>0.41</u>	<u>0.59</u>
	5A	<u>0.60</u>	<u>0.59</u>	<u>0.65</u>	<u>0.45</u>	<u>0.71</u>	<u>0.45</u>	<u>0.50</u>	<u>0.47</u>	<u>0.55</u>
	5B	<u>0.54</u>	<u>0.59</u>	<u>0.70</u>	<u>0.47</u>	<u>0.74</u>	<u>0.51</u>	<u>0.54</u>	<u>0.43</u>	<u>0.57</u>
	5C	<u>0.49</u>	<u>0.68</u>	<u>0.73</u>	<u>0.49</u>	<u>0.76</u>	<u>0.57</u>	<u>0.55</u>	<u>0.39</u>	<u>0.58</u>
6A	<u>0.57</u>	<u>0.61</u>	<u>0.66</u>	<u>0.46</u>	<u>0.72</u>	<u>0.47</u>	<u>0.48</u>	<u>0.52</u>	<u>0.56</u>	
6B	<u>0.52</u>	<u>0.65</u>	<u>0.69</u>	<u>0.47</u>	<u>0.75</u>	<u>0.56</u>	<u>0.46</u>	<u>0.50</u>	<u>0.58</u>	
7	<u>0.53</u>	<u>0.64</u>	<u>0.66</u>	<u>0.43</u>	<u>0.73</u>	<u>0.49</u>	<u>0.45</u>	<u>0.46</u>	<u>0.55</u>	
8	<u>0.62</u>	<u>0.63</u>	<u>0.66</u>	<u>0.49</u>	<u>0.71</u>	<u>0.45</u>	<u>0.47</u>	<u>0.43</u>	<u>0.56</u>	
Renewable Fraction		0.50	0.35	0.50	0.50	0.10	0.50	0.50	0.50	0.50

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FOR THE ENVIRONMENTAL IMPACT OF ITS ACTIVITIES**

ASHRAE is concerned with the impact of its members' activities on both the indoor and outdoor environment. ASHRAE's members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted Standards and the practical state of the art.

ASHRAE's short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the Standards and Guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive Technical Committee structure, continue to generate up-to-date Standards and Guidelines where appropriate and adopt, recommend, and promote those new and revised Standards developed by other responsible organizations.

Through its *Handbook*, appropriate chapters will contain up-to-date Standards and design considerations as the material is systematically revised.

ASHRAE will take the lead with respect to dissemination of environmental information of its primary interest and will seek out and disseminate information from other responsible organizations that is pertinent, as guides to updating Standards and Guidelines.

The effects of the design and selection of equipment and systems will be considered within the scope of the system's intended use and expected misuse. The disposal of hazardous materials, if any, will also be considered.

ASHRAE's primary concern for environmental impact will be at the site where equipment within ASHRAE's scope operates. However, energy source selection and the possible environmental impact due to the energy source and energy transportation will be considered where possible. Recommendations concerning energy source selection should be made by its members.

Standard 189.1 and the International Green Construction Code

Standard 189.1 serves as the complete technical content of the International Green Construction Code[®] (IgCC). The IgCC creates a regulatory framework for new and existing buildings, establishing minimum green requirements for buildings and complementing voluntary rating systems. For more information, visit www.iccsafe.org.

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Founded in 1894, ASHRAE is a global professional society committed to serve humanity by advancing the arts and sciences of heating, ventilation, air conditioning, refrigeration, and their allied fields.

As an industry leader in research, standards writing, publishing, certification, and continuing education, ASHRAE and its members are dedicated to promoting a healthy and sustainable built environment for all, through strategic partnerships with organizations in the HVAC&R community and across related industries.

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