



**BSR/ASHRAE/IES Addendum an
to ANSI/ASHRAE/IES Standard 90.1-2022**

Public Review Draft

Proposed Addendum an to Standard 90.1-2022, Energy Standard for Sites and Buildings Except Low- Rise Residential Buildings

**First Public Review (July 2024)
(Draft Shows Proposed Changes to Current Standard)**

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FOREWORD

This addendum revises section 9.5.1 Building Area Method lighting power density (LPD) values. These values are developed via a space-weighted average using 9.5.2 Space-by-Space Method individual LPD values. Addendum S which received only one editorial comment included the revised Space-by-Space LPD values. These values are directly based on Addendum S.

The cost-effectiveness analysis was done during the development of Addendum s and this is an alternate compliance pathway.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (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 an to 90.1-2022

Modify the lighting power density values as follows

9.5.1 **Building Area Method Compliance Path.** Use the following steps to determine the *interior lighting power allowance* by the Building Area Method:

Table 9.5.1 Lighting Power Density Using the Building Area Method

Building Area Type ^a	LPD, W/ft ²
Automotive facility	<u>0.69</u> 0.73
Convention center	<u>0.58</u> 0.64
Courthouse	<u>0.69</u> 0.75
Dining: Bar lounge/leisure	0.70 <u>0.74</u>
Dining: Cafeteria/fast food	<u>0.67</u> 0.70
Dining: Family	<u>0.62</u> 0.65
Dormitory	<u>0.48</u> 0.52
Exercise center	<u>0.68</u> 0.72
Fire station	<u>0.52</u> 0.56
Gymnasium	<u>0.70</u> 0.75
Health care clinic	<u>0.74</u> 0.77
Hospital	<u>0.88</u> 0.92
Hotel/motel	<u>0.49</u> 0.53
Library	<u>0.81</u> 0.83
Manufacturing facility	<u>0.77</u> 0.82
Motion picture theater	<u>0.39</u> 0.43
Multifamily	<u>0.44</u> 0.46
Museum	<u>0.52</u> 0.56
Office	<u>0.59</u> 0.62
Parking garage	<u>0.14</u> 0.17
Penitentiary	<u>0.62</u> 0.65
Performing arts theater	<u>0.76</u> 0.82
Police station	<u>0.58</u> 0.62
Post office	<u>0.60</u> 0.64
Religious facility	<u>0.61</u> 0.66
Retail	<u>0.73</u> 0.78
School/university	<u>0.66</u> 0.70
Sports arena	<u>0.68</u> 0.73
Town hall	<u>0.63</u> 0.67
Transportation	<u>0.55</u> 0.56
Warehouse	<u>0.52</u> 0.45
Workshop	<u>0.82</u> 0.86

a. In cases where both a general *building* area type and a specific *building* area type are listed, the specific *building* area type shall apply.

9.5.1 Building Area Method Compliance Path. Use the following steps to determine the *interior lighting power allowance* by the Building Area Method:

Table 9.5.1 Lighting Power Density Using the Building Area Method

Building Area Type^a	LPD, W/m²
Automotive facility	<u>7.4</u> 7.9
Convention center	<u>6.3</u> 6.8
Courthouse	<u>7.5</u> 8.0
Dining: Bar lounge/leisure	<u>7.5</u> 8.0
Dining: Cafeteria/fast food	<u>7.2</u> 7.5
Dining: Family	<u>6.7</u> 7.0
Dormitory	<u>5.2</u> 5.6
Exercise center	<u>7.3</u> 7.8
Fire station	<u>5.6</u> 6.0
Gymnasium	<u>7.5</u> 8.1
Health care clinic	<u>7.9</u> 8.3
Hospital	<u>9.4</u> 9.9
Hotel/motel	<u>5.3</u> 5.7
Library	<u>8.7</u> 9.0
Manufacturing facility	<u>8.3</u> 8.8
Motion picture theater	<u>4.2</u> 4.6
Multifamily	<u>4.7</u> 4.9
Museum	<u>5.6</u> 6.0
Office	<u>6.3</u> 6.7
Parking garage	<u>1.5</u> 1.8
Penitentiary	<u>6.7</u> 7.0
Performing arts theater	<u>8.2</u> 8.8
Police station	<u>6.3</u> 6.6
Post office	<u>6.5</u> 6.8
Religious facility	<u>6.5</u> 7.1
Retail	<u>7.9</u> 8.4
School/university	<u>7.1</u> 7.5
Sports arena	<u>7.3</u> 7.8
Town hall	<u>6.8</u> 7.2
Transportation	<u>5.9</u> 6.0
Warehouse	<u>5.6</u> 4.8
Workshop	<u>8.8</u> 9.3

a. In cases where both a general *building* area type and a specific *building* area type are listed, the specific *building* area type shall apply.