



**BSR/ASHRAE/IES Addendum bb
to ANSI/ASHRAE/IES Standard 90.1-2016**

Public Review Draft

Proposed Addendum bb to Standard 90.1-2016, Energy Standard for Buildings Except Low-Rise Residential Buildings

**Third Public Review Draft (February 2019)
(Draft Shows Proposed Independent Substantive
Changes to Previous Public Review Draft)**

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FOREWORD

This ISC represents resolution of comments from the 1st and 2nd public reviews. Values in this ISC reflect updates to the lighting model. If addendum bb is adopted, it represents an average 11% reduction in lighting power allowance when comparing 2016 to the as proposed 2019 space-by-space LPD values. This 11% reduction is NOT weighted by floor area type.

As stated in the original addendum, data for the model is based on a large sample of readily available luminaires. These are products that are in the market and already being specified widely. As such, we believe these proposed values are cost-effective.

Addendum bb to 90.1-2016

Modify the standard as follows (IP and SI Units)

Note: Footnotes and other portions of table not shown are unchanged.

Table 9.6.1 Lighting Power Density Allowances Using the Space-by-Space Method and Minimum Control Requirements Using Either Method

Informative Note: This table is divided into two sections; this first section covers <i>space</i> types that can be commonly found in multiple <i>building</i> types. The second part of this table covers <i>space</i> types that are typically found in a single <i>building</i> type.	
Common <i>Space</i> Types ¹	LPD Allowances, W/ft ²
Atrium	
<20 ft in height	0.48 <u>0.39</u>
≥20 ft and ≤40 ft in height	0.57 <u>0.48</u>
>40 ft in height	0.70 <u>0.60</u>
Classroom/Lecture Hall/Training Room	
Penitentiary	1.38 <u>0.89</u>
All other classrooms/lecture halls/training rooms	0.78 <u>0.71</u>
Courtroom	
Courtroom	1.25 <u>1.20</u>
Computer Room	
Computer Room	1.00 <u>0.94</u>
Dining Area	
Facility for the visually impaired (and not used primarily by staff) ³	1.38 <u>1.27</u>
Food Preparation Area	
Food Preparation Area	1.29 <u>1.09</u>
Laboratory	
In or as a classroom	1.17 <u>1.11</u>
All other laboratories	1.70 <u>1.33</u>
Laundry/Washing Area	
Laundry/Washing Area	0.59 <u>0.53</u>
Lobby	
Facility for the visually impaired (and not used primarily by the staff) ³	2.49 <u>1.69</u>
Elevator	0.71 <u>0.65</u>
All other lobbies	1.11 <u>0.84</u>
Pharmacy Area	
Pharmacy Area	1.90 <u>1.66</u>
Sales Area ⁴	
Sales Area ⁴	1.12 <u>1.05</u>
Storage Room	
<50 ft ²	0.40 <u>0.51</u>
≥50 ft ² and ≤1000 ft ²	0.38
All other storage rooms	0.38
Dormitory—Living Quarters	
Dormitory—Living Quarters	0.84 <u>0.50</u>
Healthcare Facility	
Imaging room	0.85 <u>0.94</u>
Nursery	1.38 <u>0.92</u>
Nurse's station	1.11 <u>1.17</u>
Retail Facilities	
Mall concourse	1.03 <u>0.82</u>

Note: other portions of table not shown are unchanged.

SI Units

Common Space Types ¹	LPD Allowances, W/m ²
Atrium	
<6.1 m in height	5.4 <u>4.6</u>
≥6.1 m and ≤12.2 m in height	6.4 <u>5.2</u>
>12.2 m in height	7.5 <u>6.5</u>
Classroom/Lecture Hall/Training Room	
Penitentiary	44.8 <u>9.5</u>
All other classrooms/lecture halls/training rooms	9.6 <u>7.6</u>
Courtroom	43.5 <u>12.9</u>
Computer Room	40.7 <u>10.1</u>
Dining Area	
Facility for the visually impaired (and not used primarily by staff) ³	44.8 <u>13.7</u>
Food Preparation Area	43.9 <u>11.7</u>
Laboratory	
In or as a classroom	42.6 <u>11.9</u>
All other laboratories	48.3 <u>14.3</u>
Laundry/Washing Area	6.3 <u>5.7</u>
Lobby	
Facility for the visually impaired (and not used primarily by the staff) ³	26.8 <u>18.2</u>
Elevator	7.7 <u>7.0</u>
All other lobbies	44.9 <u>9.0</u>
Pharmacy Area	20.4 <u>17.9</u>
Sales Area ⁴	42.0 <u>11.3</u>
Storage	
<4.6 m ²	4.3 <u>5.5</u>
≥4.60 m ² and ≤305 m ²	4.1
All other storage rooms	4.1
Dormitory—Living Quarters	9.0 <u>5.4</u>
Healthcare Facility	
Imaging room	9.2 <u>10.1</u>
Nursery	44.8 <u>9.9</u>
Nurse's station	44.9 <u>12.6</u>
Retail Facilities	
Mall concourse	44.4 <u>8.8</u>