

Building Area Values

Simple Average LPD

0.69 0.64 0.63 0.65 0.63 0.61 0.68

Important Category Average LPD

0.62 0.56 0.56 0.58 0.58 0.58

	Oregon 2014	WSEC 2015	IECC 2018 / ASHRAE 90.1-2016	Draft WSEC 2015 + IECC	Seattle 2018	2018 + IECC 2018 (where	189.1	189.1 + Integrated Draft	Title 24 proposal 2019
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0.55 0.59

DB proposal	WA 2018 SMART BUILDING LPA
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2. By limiting the classroom wattage, it will limit the classroom lighting design. I'm working on a college classroom (about 28 seats) that needs to be flexible for the different professors that use the same space. The client wants marker boards wallwashed on 3 of 4 walls, plus the ambient lighting. I'm barely meeting the code now using all LED.

3. I understand the LPD must be reduced, however, anything more than a 20% drop from the current 2012 WSEC LPD's (not the ingrated draft LPD's) is too drastic of a cut with the current and projected technology.

4. From my point of view, the proposed numbers are quite low. Even when going with all LED product for offices, we are typically around 0.7w/sqft. That number may be higher in a small space. I can't say that I have a large batch of case studies to prove my point, but 33% reduction is steep any way you slice it. If we need to get to this range of LPD, we should be considering operating LPD and not connected load. With our daylight control requirements, we are typically using much less energy than the LPD would have folks believe.

Categories	Integrated Draft (Best of)	Seattle 2018 + IECC	189.1	DB Proposal
COMMON SPACE-BY-SPACE TYPES^a	LPD	LPD	LPD	LPD
Classroom/lecture hall/training room				
Otherwise	0.96	0.9	0.74	0.74
Corridor				
In a facility for the visually impaired (and not used primarily by the staff) ^b	0.74	0.74	0.81	0.74
In a hospital	0.63	0.63	0.81	0.63
Otherwise	0.53	0.48	0.58	0.48
Dining area				
Otherwise	0.52	0.47	0.53	0.47
Food preparation	0.79	0.71	0.92	0.71
Guest room	0.38	0.38	0.75	0.38
Lobby				
Otherwise	0.72	0.65	0.86	0.65
Locker room	0.48	0.48	0.45	0.45
Lounge/breakroom				
Otherwise	0.58	0.52	0.44	0.44
Office				
Enclosed	0.89	0.8	0.85	0.8
Enclosed <250				
Enclosed >250				
Open plan	0.78	0.7	0.78	0.7
Sales area	1.22	1.14	1.06	1.06
Stairwell	0.55	0.5	0.5	0.5
Storage room				
< 50 SF	0.46	0.45	0.86	0.45
50SF-1000SF	0.46	0.45	0.43	0.43
All other Storage	0.46	0.45	0.43	0.43
Warehouse – storage area				
For medium to bulky palletized items	0.35	0.35	0.27	0.27
For smaller, hand-carried items	0.69	0.68	0.65	0.65

90.1 Addendum bb	90.1 Addendum bb + WSEC 2015	
LPD	LPD	Ratio
0.84	0.84	1.000
0.71	0.71	1.000
0.71	0.63	0.887
0.41	0.41	1.000
0.43	0.43	1.000
1.29	0.79	0.612
0.41	0.38	0.927
1.11	0.72	0.649
0.52	0.52	1.000
0.59	0.58	0.983
0.88	0.88	1.000
0.88	0.88	1.000
0.79	0.79	1.000
0.67	0.67	1.000
1.12	1.12	1.000
0.49	0.49	1.000
0.4	0.4	1.000
0.38	0.38	1.000
0.38	0.38	1.000
0.33	0.33	1.000
0.69	0.69	1.000

bb + WSEC 2015 Limited to 10%	Jonlin (bb + ID with corrections)
	LPD
0.84	0.84
0.71	0.71
0.639	0.63
0.41	0.41
0.43	0.43
1.161	0.92
0.38	0.41
0.999	0.86
0.48	0.52
0.58	0.58
0.88	0.88
0.88	0.88
0.79	0.79
0.67	0.67
1.12	1.12
0.49	0.49
0.4	0.40
0.38	0.38
0.38	0.38
0.33	0.33
0.69	0.69

	WSEC 2015	90.1-2016	Propose?
Area Allowance	500	1000	500
Retail 1	0.6	0.45	0.45
Retail 2	0.6	0.45	0.45
Retail 3	1.4	1.05	1.05
Retail 4	2.5	1.88	1.88

	WSEC 2006	WSEC 2015				ASHRAE 90.1-2016				Ratio 90.1 to wsec 2015			
		Zone 1	Zone 2	Zone 3	Zone 4	Zone 1	Zone 2	Zone 3	Zone 4	Zone 1	Zone 2	Zone 3	Zone 4
Base Site Allowance		500	600	750	1300	350	400	500	900	0.70	0.67	0.67	0.69
Tradable													
Parking areas and drives	0.15	0.04	0.06	0.08	0.1	0.03	0.04	0.06	0.08	0.75	0.67	0.75	0.80
Walkways less than 10 feet wide	1.0	0.7	0.7	0.8	1	0.5	0.5	0.6	0.7	0.71	0.71	0.75	0.70
walkways > 10 feet wide, plazas	0.2	0.14	0.14	0.16	0.2	0.1	0.1	0.11	0.14	0.71	0.71	0.69	0.70
Stairways	1.0	0.75	1	1	1	0.6	0.7	0.7	0.7	0.80	0.70	0.70	0.70
Pedestrian Tunnels		0.15	0.15	0.2	0.3	0.12	0.12	0.14	0.21	0.80	0.80	0.70	0.70
Landscaping						0.03	0.04	0.04	0.04				
Main Entries	30	20	20	30	30	14	14	21	21	0.70	0.70	0.70	0.70
Other doors	20	20	20	20	20	14	14	21	21	0.70	0.70	1.05	1.05
Loading docks						0.35	0.35	0.35	0.35				
Entry canopies	1.25	0.25	0.25	0.4	0.4	0.2	0.25	0.4	0.4	0.80	1.00	1.00	1.00
Sales Canopy - free standing and attached		0.6	0.6	0.8	1	0.4	0.4	0.6	0.7	0.67	0.67	0.75	0.70
Outdoor sales - open areas	0.5	0.25	0.25	0.5	0.7	0.2	0.2	0.35	0.5	0.80	0.80	0.70	0.71
street frontage for vehicle sales lots	20	0	10	10	30	0	7	7	21	1.00	0.70	0.70	0.70
Nontradable													
Building facades per SF(WSEC is all, 90.1 is illuminated, 90.1-2016 is unchanged from previous 2013 values)	0.2	0	0.075	0.113	0.15	0	0.1	0.15	0.2	1.00	1.33	1.33	1.33
Building facades per LF	5.0					0	2.5	3.75	5				
Automated teller location	270	270	270	270	270	135	135	135	135	0.50	0.50	0.50	0.50
Automated teller per machine	90	90	90	90	90	45	45	45	45	0.50	0.50	0.50	0.50
Entrances and gate house inspection stations	1.25	0.75	0.75	0.75	0.75	0.5	0.5	0.5	0.5	0.67	0.67	0.67	0.67
Loading areas for public safety	0.5	0.5	0.5	0.5	0.5	0.35	0.35	0.35	0.35	0.70	0.70	0.70	0.70
Drive-up windows and doors	400	400	400	400	400	200	200	200	200	0.50	0.50	0.50	0.50
Parking near 24-hour retail entrance	800	800	800	800	800	400	400	400	400	0.50	0.50	0.50	0.50