

Table B44. Lighting equipment, floorspace, 2012

	Total floorspace (million square feet)								
	Lighting equipment (more than one may apply)								
	All buildings	Lit buildings	Incandescent	Standard fluorescent	Compact fluorescent	High-intensity discharge	Halogen	LED	
All buildings	87,093	83,569	38,406	80,081	53,816	23,396	28,059	22,071	
Building floorspace (square feet)									
1,001 to 5,000	8,041	7,130	2,453	6,466	2,815	373	944	348	
5,001 to 10,000	8,900	8,152	2,917	7,589	3,740	736	1,487	714	
10,001 to 25,000	14,105	13,250	4,987	12,533	6,767	2,175	2,903	1,882	
25,001 to 50,000	11,917	11,542	4,788	11,063	6,970	2,712	3,556	2,252	
50,001 to 100,000	13,918	13,564	6,218	13,217	9,652	3,766	4,989	3,479	
100,001 to 200,000	12,415	12,282	6,239	11,745	9,078	4,244	4,605	3,919	
200,001 to 500,000	10,724	10,634	6,002	10,552	8,775	4,981	5,161	4,866	
Over 500,000	7,074	7,014	4,803	6,915	6,021	4,409	4,413	4,612	
Principal building activity									
Education	12,239	12,239	5,004	12,180	8,559	4,376	3,069	2,135	
Food sales	1,252	1,252	443	1,232	560	Q	271	323	
Food service	1,819	1,819	924	1,671	1,177	121	496	275	
Health care	4,155	4,155	2,391	4,074	3,535	1,448	1,875	2,245	
Inpatient	2,374	2,374	1,745	2,373	2,260	1,217	1,452	1,647	
Outpatient	1,781	1,781	646	1,701	1,275	231	423	598	
Lodging	5,826	5,817	3,585	5,409	5,258	1,848	2,696	2,024	
Mercantile	11,330	11,320	6,646	10,714	8,053	3,959	5,925	5,118	
Retail (other than mall)	5,439	5,430	1,671	4,864	2,712	891	1,608	1,295	
Enclosed and strip malls	5,890	5,890	4,975	5,850	5,341	3,069	4,317	3,824	
Office	15,952	15,952	7,541	15,547	11,438	3,858	5,598	5,034	
Public assembly	5,559	5,527	3,035	5,208	4,125	1,922	2,172	1,955	
Public order and safety	1,440	1,414	623	1,375	1,086	404	416	360	
Religious worship	4,557	4,557	3,015	4,293	3,187	839	1,540	902	
Service	4,630	4,379	1,026	4,142	1,569	980	1,024	Q	
Warehouse and storage	13,077	12,079	3,094	11,280	4,040	2,934	2,438	998	
Other	2,002	1,930	790	1,880	783	383	344	290	
Vacant	3,256	1,128	288	1,076	445	Q	Q	Q	
Year constructed									
Before 1920	3,983	3,715	2,292	3,280	2,346	763	1,208	744	
1920 to 1945	6,025	5,774	2,750	5,472	3,714	1,337	1,948	1,528	
1946 to 1959	7,381	7,087	3,494	6,860	4,340	1,785	2,028	1,306	
1960 to 1969	10,362	10,061	4,629	9,857	6,463	2,525	2,948	2,224	
1970 to 1979	10,846	10,354	5,560	9,992	6,913	3,311	3,418	2,632	
1980 to 1989	15,230	14,688	6,972	14,263	9,199	4,591	5,124	4,374	
1990 to 1999	13,803	12,856	5,494	12,267	8,327	4,127	4,364	3,489	
2000 to 2003	7,215	7,100	2,874	6,810	4,692	2,072	2,580	1,915	
2004 to 2007	6,524	6,378	2,745	6,209	4,249	1,770	2,514	2,113	
2008 to 2012	5,723	5,556	1,595	5,070	3,574	1,116	1,929	1,747	

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All buildings	87,093	83,569	38,406	80,081	53,816	23,396	28,059	22,071
Census region and division								
Northeast	15,534	15,071	7,565	14,473	10,771	4,510	5,267	4,752
New England	4,302	4,062	2,046	3,771	2,886	1,161	1,494	1,363
Middle Atlantic	11,232	11,009	5,520	10,702	7,886	3,349	3,774	3,388
Midwest	18,919	18,190	9,038	17,514	11,841	5,357	6,169	5,148
East North Central	12,742	12,323	6,180	11,880	8,336	4,102	4,590	3,759
West North Central	6,178	5,867	2,858	5,634	3,505	1,255	1,578	1,389
South	34,279	32,621	14,581	31,363	20,042	9,347	10,970	7,559
South Atlantic	17,981	17,449	7,828	16,888	10,855	5,325	6,161	4,553
East South Central	4,904	4,726	2,468	4,573	2,923	1,182	1,349	1,232
West South Central	11,394	10,446	4,286	9,901	6,263	2,841	3,459	1,774
West	18,360	17,687	7,222	16,732	11,163	4,182	5,653	4,612
Mountain	4,981	4,677	2,253	4,529	3,007	1,314	1,663	1,513
Pacific	13,379	13,010	4,969	12,203	8,156	2,868	3,990	3,099
Climate region¹								
Very cold/Cold	31,898	30,542	14,837	29,315	20,485	8,734	10,366	9,156
Mixed-humid	27,873	27,096	13,429	26,407	17,410	8,547	9,391	6,936
Mixed-dry/Hot-dry	12,037	11,670	4,139	11,018	6,692	2,661	3,257	2,514
Hot-humid	12,831	11,881	4,769	11,096	7,285	3,035	4,152	2,733
Marine	2,454	2,381	1,232	2,246	1,944	420	893	732
Number of floors								
One	39,809	37,113	13,966	34,818	18,664	8,474	9,952	6,930
Two	20,206	19,726	9,208	19,068	12,629	5,326	5,781	3,905
Three	8,140	8,055	3,886	7,767	5,761	2,239	2,789	1,950
Four to nine	13,535	13,307	7,842	13,083	11,610	4,469	6,053	5,642
Ten or more	5,404	5,368	3,504	5,344	5,152	2,888	3,484	3,645
Number of workers (main shift)								
Fewer than 5	17,751	14,286	4,834	12,622	6,162	1,664	2,418	993
5 to 9	8,973	8,925	3,346	8,446	4,404	1,445	1,953	902
10 to 19	9,623	9,614	3,753	9,292	5,181	1,673	2,355	1,360
20 to 49	14,514	14,512	6,370	14,195	9,078	3,603	4,800	3,548
50 to 99	13,476	13,476	6,902	13,040	9,597	4,563	5,243	4,223
100 to 249	10,941	10,941	5,568	10,782	8,461	4,441	4,227	4,231
250 or more	11,815	11,815	7,633	11,704	10,933	6,007	7,062	6,814
Weekly operating hours								
Fewer than 40	8,220	5,514	2,684	5,037	2,645	754	1,073	445
40 to 48	15,828	15,693	6,209	15,156	7,767	3,063	3,615	1,876
49 to 60	20,529	20,401	7,753	19,671	12,581	5,227	5,702	4,094
61 to 84	15,867	15,773	8,805	15,372	11,430	5,341	6,696	6,080
85 to 167	9,395	9,336	4,289	8,702	6,225	2,726	3,544	2,832
Open continuously	17,253	16,852	8,667	16,144	13,169	6,286	7,428	6,745

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All buildings	87,093	83,569	38,406	80,081	53,816	23,396	28,059	22,071
Ownership and occupancy								
Nongovernment owned	67,550	64,509	29,885	61,330	40,348	16,399	22,488	17,210
Owner occupied	30,637	29,949	13,181	28,109	18,432	6,238	8,652	6,135
Leased to tenant(s)	26,115	25,543	11,650	24,494	15,538	6,932	9,504	7,422
Owner occupied and leased	8,873	8,778	5,011	8,508	6,323	3,190	4,293	3,647
Unoccupied	1,925	239	Q	219	Q	Q	Q	Q
Government owned	19,543	19,060	8,522	18,751	13,469	6,998	5,571	4,862
Federal	1,573	1,573	761	1,572	1,288	804	949	798
State	5,539	5,412	2,581	5,320	4,009	1,955	1,716	1,480
Local	12,431	12,074	5,180	11,859	8,171	4,238	2,906	2,584
Party responsible for operation and maintenance of energy systems								
Building owner	73,702	70,469	31,846	67,399	46,163	19,310	22,602	17,924
Business owner or tenant	11,309	11,045	5,466	10,748	6,369	3,351	4,596	3,455
Property management	1,250	1,230	681	1,127	841	462	628	502
Other	832	825	413	807	444	Q	Q	Q
Provider of direct input on energy-related equipment purchases								
Building owner	76,271	72,961	33,177	69,883	47,361	19,929	23,577	18,671
Business owner or tenant	8,256	8,059	3,996	7,819	4,871	2,621	3,448	2,431
Property management	880	880	411	733	573	330	453	360
Other	1,686	1,668	822	1,647	1,012	517	581	609
Campus or complex activity								
Not part of a campus or complex	52,275	50,347	23,510	48,384	31,219	12,969	16,382	11,924
Primary or secondary school	4,616	4,580	1,947	4,534	2,857	1,742	1,103	792
College or university	4,068	3,990	1,216	3,928	3,521	876	1,147	1,197
Office complex	3,456	3,383	1,586	3,281	2,536	910	1,329	1,204
Retail complex	5,159	5,011	3,088	4,795	3,723	1,995	2,705	2,325
Storage complex	3,212	2,360	397	1,951	695	566	Q	Q
Religious campus or complex	1,932	1,911	1,294	1,704	1,189	379	666	438
Health care complex	3,362	3,302	2,212	3,289	2,973	1,372	1,671	1,810
Lodging or resort complex	1,295	1,284	675	1,088	1,113	520	573	Q
Transportation complex	554	526	231	499	356	223	209	211
Government complex	2,107	2,087	798	2,005	1,436	660	683	608
Other	5,057	4,787	1,453	4,622	2,199	1,184	1,371	953

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All buildings	87,093	83,569	38,406	80,081	53,816	23,396	28,059	22,071
Renovations in buildings constructed before 2008 (more than one may apply)								
Any type of renovation	42,216	41,479	21,682	40,110	29,853	13,577	16,029	13,577
Addition or annex	13,022	12,924	7,595	12,770	9,867	5,170	5,328	4,711
Reduction in floorspace	1,753	1,718	1,071	1,652	1,287	738	581	603
Roof replacement	20,917	20,674	11,459	20,154	15,616	7,578	8,126	7,492
Exterior wall replacement	4,230	4,197	2,231	4,118	3,247	1,569	1,951	1,725
Interior wall reconfiguration	21,340	21,006	11,613	20,643	16,528	7,193	9,477	8,549
Window replacement	12,265	12,193	6,862	11,805	9,675	4,328	5,358	4,526
HVAC equipment upgrade	26,779	26,504	14,715	25,911	20,410	9,918	11,421	9,614
Lighting upgrade	25,503	25,268	13,502	24,681	19,342	8,933	10,688	9,803
Electrical upgrade	16,160	15,948	9,523	15,553	12,613	5,533	7,293	6,345
Plumbing system upgrade	13,828	13,701	8,026	13,354	11,096	4,748	6,417	5,653
Insulation upgrade	7,607	7,471	4,343	7,377	5,782	2,503	3,255	3,303
Fire, safety, or security upgrade	17,196	17,108	9,766	16,727	13,892	6,325	7,996	7,226
Structural upgrade	3,913	3,876	2,199	3,791	3,152	1,316	1,902	1,672
Other	848	848	499	848	656	Q	492	391
No renovations	39,154	36,534	15,129	34,901	20,389	8,704	10,101	6,748
Buildings constructed 2008 or later	5,723	5,556	1,595	5,070	3,574	1,116	1,929	1,747
Energy sources (more than one may apply)								
Electricity	84,869	83,569	38,406	80,081	53,816	23,396	28,059	22,071
Natural gas	58,725	58,278	29,672	56,575	40,392	18,328	21,261	17,539
Fuel oil	20,200	20,120	11,355	19,742	16,251	8,782	9,690	8,933
District heat	5,964	5,873	3,161	5,781	5,314	2,555	2,769	2,871
District chilled water	4,608	4,545	2,284	4,516	4,071	1,729	1,805	1,941
Propane	7,706	7,652	3,803	7,281	4,622	2,584	2,865	2,098
Other	3,826	3,784	1,735	3,685	2,664	957	1,466	1,247
Energy end uses (more than one may apply)								
Buildings with space heating	80,078	79,384	37,292	76,646	52,287	22,631	27,225	21,503
Buildings with cooling	79,294	78,876	37,119	76,125	52,285	22,734	27,618	21,869
Buildings with water heating	79,015	78,622	37,160	75,803	52,606	22,834	27,589	21,894
Buildings with cooking	38,546	38,494	23,469	37,728	30,809	14,810	17,558	15,043
Buildings with manufacturing	5,078	5,044	2,387	4,928	2,363	1,421	1,506	751
Buildings with electricity generation	25,642	25,605	13,305	25,096	21,247	10,397	12,027	11,434
Percent lit when open								
Zero	322	Q	Q	Q	Q	N	N	Q
1 to 50	12,628	12,628	4,867	11,798	6,202	2,418	2,884	1,937
51 to 99	34,814	34,814	19,106	33,816	25,376	11,003	15,045	11,847
100	35,726	35,726	14,283	34,132	22,087	9,929	10,084	8,278
Building never open/electricity not used	3,603	371	Q	326	Q	Q	Q	Q

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All buildings	87,093	83,569	38,406	80,081	53,816	23,396	28,059	22,071
Percent lit during off hours								
Zero	24,746	23,500	8,122	21,910	11,540	4,722	4,692	3,038
1 to 50	50,753	50,753	25,337	49,312	35,189	15,141	19,374	15,404
51 to 100	6,926	6,926	3,936	6,568	5,611	2,627	3,022	2,712
Building always open with no "off hours"	2,443	2,390	1,012	2,291	1,477	906	970	917
Electricity not used	2,225	N	N	N	N	N	N	N
Lighting equipment types (more than one may apply)								
Incandescent	38,406	38,406	38,406	37,447	30,603	15,324	19,550	15,118
Standard fluorescent	80,081	80,081	37,447	80,081	51,568	22,703	27,403	21,386
Compact fluorescent	53,816	53,816	30,603	51,568	53,816	18,808	23,433	19,584
High-intensity discharge	23,396	23,396	15,324	22,703	18,808	23,396	13,211	10,729
Halogen	28,059	28,059	19,550	27,403	23,433	13,211	28,059	13,934
LED	22,071	22,071	15,118	21,386	19,584	10,729	13,934	22,071
Other	446	446	390	446	446	Q	361	357
Window and interior lighting features (more than one may apply)								
Multipaned windows	60,362	59,205	29,012	57,237	41,014	18,216	21,614	17,864
Tinted window glass	45,025	44,068	21,931	42,856	31,503	15,006	17,327	14,758
Reflective window glass	15,908	15,759	8,748	15,232	12,668	6,287	7,896	6,873
External overhangs or awnings	32,188	31,869	17,405	30,762	23,268	10,433	13,417	10,694
Skylights or atriums	22,261	21,902	11,479	21,291	16,651	8,534	10,239	8,409
Light scheduling	30,263	30,263	16,639	29,056	24,267	12,845	15,175	12,888
Occupancy sensors	35,871	35,871	18,510	34,858	28,252	13,754	16,401	15,662
Multi-level lighting or dimming	14,534	14,534	9,302	13,971	12,688	6,520	8,888	7,984
Daylight harvesting	6,114	6,114	3,387	6,032	4,887	2,868	3,341	3,980
Demand responsive lighting	4,738	4,738	2,946	4,506	3,502	2,061	2,437	2,251
Building automation system (BAS) for lighting ²	12,068	12,068	6,984	11,721	10,143	5,684	6,577	6,766
Equipment usage reduced when building not in full use (more than one may apply)								
Heating	63,167	62,669	30,314	60,546	42,331	18,572	21,904	17,671
Cooling	62,516	62,156	30,210	59,941	42,180	18,424	22,268	17,939
Lighting	78,594	78,594	36,405	75,380	51,068	21,872	26,646	20,668

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¹These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

²In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)*.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 20 buildings were sampled.

N = No cases in reporting sample.

Notes: • Because of rounding, data may not sum to totals. • See *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definition of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from <http://www.eia.gov/consumption/commercial/data/2012/>

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Form EIA-871A of the 2012 Commercial Buildings Energy Consumption Survey.