



**LIGHTING POWER DENSITY
SPACE BY SPACE METHOD**

Sample explanation of adding decorative additional allowance

ASHRAE 90.1 2007 increases the allowable LPD by 1.0 w/sf for all spaces installed with decorative lighting fixtures.

For example, a 2,000 square foot bank service area has installed decorative sconces in approximately 300 square feet of their service area. As per ASHRAE 90.1 2007 table 9.6.1 lists Bank office/ service area with allowable LPD as 1.5 w/sf giving it an allowance of 3,000 w/sf. With the decorative addition of 1.0 w/sf, in 300 sf, the total LPD allowance now is increased by 300 watts w/sf. The project actually only installed 2,500 watts of regular lighting and 200 watts of decorative lighting. Below is how the final savings were recorded.

Baseline Allowance	Baseline Decorative Allowance	Design Case Installed Fixtures	Design Case Installed Decorative fixtures
3000 watts	200 watts*	2500 watts	200 watts
Total Baseline Allowance 3200 w/sf		Total Installed lighting = 2700 watts	
		Savings = 15.7% LPD Savings	

* Take note that the baseline decorative allowance will be equal to what was actually installed. The project just had to make sure it wasn't going over 300 w/sf.