

Using Advanced Dimming Controls to Eliminate LED Light Flicker and Create Perfect Hotel Ambiance

In the hotel business, creating the perfect ambiance is key. It helps showcase the look, feel and mood that hotel guests come to expect when they enter through the front doors. This poses unique challenges for electrical contractors and designers, as is evident in a recent lighting retrofit project completed by The Roosevelt Hotel in Seattle, Washington. Built in 1929, The Roosevelt is a handsomely restored hotel located in the heart of a number of downtown Seattle attractions. The hotel prides itself on setting the ideal mood for its guests, and embarked on an upgrade for the lighting fixtures in the lobby area with state-of-the-art energy efficient lighting to help achieve that.

To achieve the targeted lighting levels and colors, The Roosevelt decided upon LED lighting, based on recent technological improvements in product design. When used with a dimming device, LED lamps would help transform the lobby area with perfect colors and aesthetics unable to be achieved with the standard incandescent lighting used for nearly a century. LED lighting not only sets the right mood, but since lobby lights



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require a 24-hour burn, also provides the hotel with savings on its utility costs.

Early attempts at using dimming devices with the new LED lighting resulted in low-end flickering when the lamps were in dimmed to lower light levels. This was a very prominent problem for both guests entering the hotel and staff who could visibly notice the issue. The ideal ambiance that the hotel had worked so hard to be known for was not being recognized.

Patrick Hughes, chief engineer at The Roosevelt, in looking for

alternative solutions that would eliminate the low-end flickering issues, turned to Graybar, a specialized distributor of high-quality components, equipment and materials for the electrical and telecommunications industries. The alternative solution would have to not only eliminate the low-end flickering problem, but have to be an easy, straightforward solution that didn't require extensive renovation to the hotel's lobby – pulling wires, patching walls and repainting.

In discussing the issues, Jim Edwards from Graybar Seattle, recommended Leviton's Universal Dimmer, a preferred solution that eliminates flickering issues especially when dimming lighting banks that contain multiple LED lamps. Edwards has worked with Leviton products on a near-daily basis, and after seeing firsthand the capabilities that the



product offered, knew that the Universal Dimmer would alleviate the problems The Roosevelt was having with other options.

Since the Universal Dimmer works with both two- and three-wire installations, the solution was ideal for The Roosevelt's existing residential wiring infrastructure that was built without a neutral wire at the switch box. This allowed for an ease of installation since contractors could install the devices without pulling a neutral wire. Through rigorous testing processes, Leviton ensured that its Universal Dimmer would be the ideal solution for a wide range of energy efficient lamps – both dimmable LED and dimmable CFL – and eliminate the low-end flickering often found with other solutions.

Leviton's Universal Dimmer is the ideal solution for eliminating a number of issues when dimming energy efficient lamps, including flickering or fluttering of the lamp – as was the case at The Roosevelt – as well as reduced dimming range and inconsistent performance based on the number and assortment of lamps being controlled by one incandescent dimmer. It gives contractors, distributors and retailers the ability to offer a single lighting control capable of properly dimming next-generation lighting sources while remaining backwards compatible with current lamps.

In total, The Roosevelt installed 12 Universal Dimmers – six in the public lobby space, and since the devices worked so well, six more

were installed in management offices to enable proper dimming control behind the scenes while individuals were working.

Hughes noted that since the completed installation of Leviton's Universal Dimmers in the lobby, everyone has been pleased. In the hospitality industry, guest satisfaction is the ultimate goal, and if something is amiss, they'll notice. Roosevelt guests have commented on the updated mood of the hotel, and noted that improved lighting has made colors crisp and clean, even at low levels.



Universal Dimmer
Cat. No. 6674

“We have been extremely pleased with the end result that Leviton's Universal Dimmers provided in helping create the ambiance that we here at The Roosevelt Hotel want our guests to receive,” explained Hughes. “Not only has the overall look and feel of the hotel improved, but we have been able to see utility costs go down significantly, which is a major plus for any business owner.”