

**1. Introduction**

By the instant application (“Application”), Lutron Electronics Co., Inc. (“Lutron”) requests that the Commission grant a two year experimental license to permit Lutron to operate the facilities (the “Facilities”) specified in the instant Application.

**2. Purpose of the Operation/Why an STA is Necessary**

Lutron is an industry leader with respect to the design and manufacture of energy-saving lighting controls and dimmers, automated window treatments and appliance modules for both residential and commercial applications. Lutron products save energy, and the company estimates that the installed base of its products saves the nation nearly 10 billion kWh of electricity, or approximately \$1 billion in utility costs per year. Lutron manufactures more than 16,000 energy-saving products, sold in more than 100 countries around the world.

Specific information regarding the nature and purpose of this experiment is contained in a Confidential Exhibit 3, with such Exhibit 3 subject to a separately-filed Confidentiality Request.

Continued operation of the facilities previously granted under STA (0351-EX-ST-2011) is necessary in light of ongoing product development of Part 15 devices in this frequency range. It is necessary to run periodic experiments to evaluate product performance with building attenuation, shadowing, multipath cancellation, various diversity schemes, and distance impact packet error rate and overall product functionality.

**3. Mitigation of Interference**

Lutron is well aware of the responsibility of licensees in the Experimental Radio Service to avoid interference to other licensed operations. To that end, the following is shown:

- At each fixed indoor location (locations 1-3), the experiment is to be conducted at very low power levels and will be conducted solely indoors, with a single transmitter to be placed at or near the center of a floor of a commercial office building. Thus, attenuation of the signal due to free space loss and the walls of the office building is expected to result in the ultimate degradation of signal field strength to levels at or around those specified in Part 15 at the edges of the building.
- The three office buildings at which the experiment will be conducted indoors are located in a rural area in the Lehigh Valley area of Pennsylvania, on Lutron’s private property. These buildings are not accessible to members of the public, except upon the express permission of Lutron.

- Operation of the Facilities will not be continuous. Rather, operation of the Facilities will occur only from 7am-6pm local time, and will be intermittent in nature. In the off state, no measurable power will be radiated.

Based on the location of the experiment, the technical parameters of the operation, and the manner in which the experiment will be conducted, the potential for interference to co-channel or adjacent channel operations is substantially mitigated.

#### **4. Stop Buzzer**

Lutron's Don Mosebrook will be conducting the test and will be available by wireless telephone at 610-909-9349 if any issues regarding interference arise during testing. Alternate "stop buzzer": Rob Bollinger – (610-393-8106).