Clinical research company renovates office with c-Max controls and controls ready fixtures

## CASE STUDY



A major clinical research company with offices in the greater Philadelphia, PA region renovated their entire 50,000 square foot office with MaxLite's control ready fixtures and c-Max network controls.

### **Problem:**

End-user's old office space used fluorescent troffers and PL lamp downlights. Employees complained about brightness, flickering and lack of dimming capabilities in their workspace. Light switches were improperly placed and grouped resulting in too many lights turning on at once instead of just illuminating the areas that you were in. Similarly, lights were left on inadvertently many times during the night. All of these contributed to high electrical consumption and inefficient use of lighting.

### Solution:

End-user hired National Energy Solutions Inc. (NES) to help find the right lighting solution. NES through Rexel Energy Solutions chose MaxLite's Control Ready fixtures and c-Max Bluetooth network controls to retrofit



the entire workspace. The project scope involved replacing ~ 300 fluorescent troffers with MaxLite's TRK Controls Ready retrofit kits. Each TRK fixture is integrated with the USB-C port for easy adaption of c-Max sensors (NN-RTPSW) and nodes (NN-RTW). The integral controls reduced electrical labor related to wiring controls. Similarly, ~ 200 downlights upgraded to MaxLite's color selectable universal RCF downlights. Using the network power packs (NPP-300W) and ceiling mounted sensors (NPPSL-PSW), many of downlights were then network controlled. Standalone Bluetooth wall switches (WNS-W) were also added to control lights in the individual offices and common areas. "Many control systems are expensive and often a client finds it hard to realize the ROI due to commissioning and labor cost associated with adding and wiring controls. c-Max system was easy to install. The plug and play controls



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interface on the luminaire eliminated the need for any controls wiring and since it is a wireless system the client spent considerably less in labor for the same. All it took to add controls to the fixtures was a ladder, an Allen key and 45 seconds. It really was that simple."

"What is great about the c-Max system is that it is easy to go back down the road and upgrade the sensors near the windows of the common areas to daylight harvesting to save additional energy. All the client would need to do is swap the node with a daylight sensor without need for additional wiring."

"MaxLite team was at our disposal and answered all the zoning and programming questions we had and assisted us until all the office zones were commissioned properly."

-- Ray, National Energy Solutions RayDelfing@nationalesolutions.com



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### **Results:**

The entire workspace was divided into 4 discreet zones with each zone comprising of multiple groups. Each group comprised of multiple TRK's and downlights. Individual offices and smaller common areas used NN-RTPSW sensors with occupancy sensing and daylight harvesting capabilities. As a result, an employee can have the office lights automatically turn on when they walked in, have the lights auto dim or brighten depending on the natural light entering the room. The personalized wall switches allowed the user to override the programmed dimming levels. One of the employees who has sensitivity to light before had to resort to a table lamp and now is able to dim the lights in his office. For the larger common areas, NES chose the NN-RTW nodes that made it easy to wirelessly group multiple lights, including ability to add schedules, set high trims and customized scenes all without needing to add a 0-10V low voltage wiring. The color select downlights allowed to change the color temperature of the lights in different working areas thereby providing the end user with a flexible solution.

While the LED conversion is estimated to save ~ 250,000 KWH (~\$25K in electrical cost annually), the effective use of high trim, occupancy detection and day light harvesting can yield in an additional 30-35% of energy savings.

#### MaxLite

MaxLite has been committed to providing energy-efficient lighting products since 1993. One of the first movers into LED technology in the industry, MaxLite offers an extensive line of quality, certified indoor and outdoor LED lamps and luminaires. A five-time recipient of the ENERGY STAR Partner of the Year Award for its industry leadership, MaxLite continues to be at the forefront of energy-efficient technologies through the innovative research and development capabilities of its teams and facilities in New Jersey, California and Indiana.

