

Newark Airport

The Newark airport will essentially get a return on their investment for the lighting upgrade project in one year, due to dramatic energy savings. A majority of these will be realized by the retrofit performed on Terminal B. \$412,436 in savings will be obtained from improvements made in this section alone. The Terminal B project began with a pre-installation audit of 137,600 square feet of the terminal by CHEC engineers. Both Port Authority and CHEC project managers then developed lighting upgrades for every area of the terminal, from ticket counters to airline crew lounges. After the retrofit was implemented, FC readings increased by 67% while electricity use is expected to drop in the terminal by 5,155,450 kWh from a demand reduction of 714 kW. Furthermore, one of the most noteworthy retrofits in Terminal B was the B1 connector upgrade. In this passenger departure and arrival area, existing two-by-two fixtures with two U-tube lamps and a small cell louver were replaced with a reflector, three 2-foot lamps and a nine cell white louver. Illumination increased here from 13.9 to 31.6 FC, an increase of 127 percent, and power output was reduced by 55 percent. The chart below displays the energy saving measures for other sections of Terminal B.

AREA	Pre-retrofit Light levels (FC)	Post-retrofit Light Levels (FC)	% Light Increase	%Power Decrease
1. B1 Connector	13.9	31.6	127%	55%
2. B2 Connector	15.6	27.4	76%	55%
3. ABS Passageway	22.7	30.5	34%	68%
4. Parking Garage	30.3	56.1	85%	68%
5. Delta Locker Room	51.4	60.6	18%	68%
6. Radio Equipment Room	73.4	87.4	19%	68%
7. Delta Break Room	44.9	55.0	22%	68%
8. Northwest Training Rm.	45.8	49.3	8%	60%
9. Arrival Walkway	6.0	14.4	240%	64%
10. Arrival Car Lane	7.2	10.0	39%	59%
11. Parking Garage Walk	22.1	55.1	149%	64%
12. Departure Level	28.6	56.1	96%	51%
13. B3 Ramp, Baggage	34.1	42.4	24%	60%
14. B3 Ramp, British Air Operations	39.4	42.3	7%	67%