

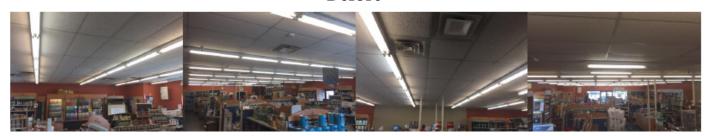
# Case Study:

Maine Paint, LED Retrofit

Angus Garfield Regional Sales Partner Indoff, Inc. Cell: 207-653-4231 Angus.Garfield@indoff.com

# Always Earth Friendly Retrofit Lighting

#### Before



#### Problem

Maine Paint had trouble matching colors under the traditional fluorescent 4' T8 32 watt Alto 3500K tubes. Changing ballasts and tubes was time consuming, and there was never consistency in the light source since some tubes were older than others, and were fading or flickering.

## Solution

Customer had multiple 4' strip fixtures end to end in long rows, with a quantity of 2 each, 32 watt, 4' T8 per fixture, plus 5 watt per ballast= 69 watts per fixture in the showroom, paint storage, and garage. Indoff, Inc., using AEF Direct Connect LED tubes, delamped from a quantity of 2, 32 watt 4' fluorescent tubes to just one 4' AEF Direct Connect 24 Watt HO5000K Frosted LED tube per fixture, or a 65% savings per fixtures.

We bypassed the old ballasts (obsolete, energy consuming technology which causes fluorescent tubes to fail if they fail), removed the old wiring, direct connected the AEF LED tubes with proprietary built in drivers using easy plug and play connectors (these tubes daisy chain together up to 270' on one power source!). Since we no longer needed the now non-powered tombstones, and the AEF LED tubes are shorter than a traditional T8 tube, we easily attached them to the existing metal fixture using clip on magnets with screw in metal bars for added security, and positioned just one LED tube per fixture, cleanly centered in the middle of fixture, between the tombstones. Additional LED tubes were connected in a linear fashion, centered in the middle of each fixture, using the same power source, and crossing the tombstones easily with a direct connector. With the LED tubes in the center of each fixture, the final appearance is clean, bright, and consistent light that really makes the store pop! In the office, they had a quantity of 3 fluorescent T8, 32 watt tubes with lens covers, plus 5 watts for ballast per fixture = 101 watts per fixture. Indoff, Inc. delamped these office fixtures to just a quantity of 2, 18 watt 5000K clear LED tubes per fixture= 36 watts per fixture, or a 64% savings.

#### Benefit

In addition to a fast LED retrofit installation, efficient re-use of the existing fixtures (saving the landfill), proper recycling by Indoff of the old fluorescent tubes, and a \$25 per LED tube rebate from Efficiency Maine paid directly to the customer, Maine Paint will be able to achieve a 65% energy saving while increasing their foot candle readings (readings below taken with an LED specific light meter):

Area	Before FC Readings	After FC Readings
Showroom Area	83	95
Paint Brush Area	84	99
Register Area	78	99
Tools	73	98
Garage	70	114
(note: we went 2 for 2 on this area due to increased ceiling height)		
Office	105	119

## After

