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| "ECM: Replace the Standard T-8 Lamps and Ballasts with Low Wattage T-8 Lamps and / or Low Ballast Factor Ballasts”  Current Condition: |
| "The lighting system includes linear fluorescent T-8, " &{$LampWatts$}& " Watt, " {$LampsPerFixture$} & "-lamp fixtures with electronic ballasts (B.F. = " &{$BallasFactor$}& "). The assessment team observed approximately " &{$NumberOfFixtures$}& " fixtures in the building, with a total load of " &{$FixtureTypeLoad$}&" kW. The estimated runtime of these lamps is approximately " &{$FixtureTypeRuntime$}& " hours per year. "  Recommended Action: |
| "Retrofit all of the standard T-8 lamps with low-wattageT-8 lamps. The low-wattage T-8 lamps should be specified at " &{RetrofitLampWatts}& " Watts, with a color temperature of 3,500 - 4,100 Kelvin. " & IF({$BallastFactor$}<>{$RetrofitBallastFactor$}, "The electronic ballasts should be specified as program start ballasts, so that they can accommodate occupancy sensor controls. The ballasts should be specified with a ballast factor of " &{$RetrofitBallastFactor$}& ", and a power factor above 95%. The total system Color Rendering Index (CRI) should be designed to be greater than 85%. The electronic ballasts are designed to provide the appropriate starting and operating electricity to the lamps. " & "Electronic ballasts operate at a higher frequency, eliminating flicker, and have a higher efficiency than magnetic ballasts.","")  Assumptions: |
| "Labor costs were estimated at $"&{$Labor\_elec$}&"/hr x "&{$LaborTimePerFixture$}&" hrs/fixture x "&{$NumberOfFixtures$}&" fixtures  Lamp costs were estimated at $"&{$LampCost$}&"/lamp x "&{$NumberOfFixtures$ \* $LampsPerFixture$}&" lamps Ballast costs were estimated at $"&{$BallastCost$}&" x "&{$NumberOfFixtures$}&" fixtures and increased O&M costs of $"&{$O&MCost$}&"/year "&IF(Heat\_Cool="No","","Energy savings take into account interactions with the heating and cooling systems") |
| "ECM: Replace the Standard T-12 Lamps and Magnetic Ballasts with Low Wattage T-8 Lamps and Low B.F. Ballasts”  Current Condition: |
| "The lighting system includes linear fluorescent T-12, " &{$LampWatts$}& " Watt, " &{$LampsPerFixture$}& "-lamp fixtures with magnetic ballasts. The assessment team observed approximately " &{$NumberOfFixtures$}& " fixtures in the building, with a total load of " &{$FixtureTypeLoad$}&" kW. The estimated runtime of these lamps is approximately " &{$FixtureTypeRuntime$}& " hours per year. "  Recommended Action: |
| "Retrofit all of the T-12 lamps with T-8 lamps and replace the magnetic ballasts with electronic ballasts in all spaces. The T-8 lamps should be specified at " &{RetrofitLampWatts}& " Watts, with a color temperature of 3,500 - 4,100 Kelvin. The electronic ballasts should be specified as program start ballasts, so that they can accommodate occupancy sensor controls. The ballasts should be specified with a ballast factor of " &{$RetrofitBallastFactor$}& ", and a power factor above 95%. The total system Color Rendering Index (CRI) should be designed to be greater than 85%. The electronic ballasts are designed to provide the appropriate starting and operating electricity to the lamps. " & "Electronic ballasts operate at a higher frequency, eliminating flicker, and have a higher efficiency than magnetic ballasts."  Assumptions: |
| "Labor costs were estimated at $"&{$Labor\_elec$}&"/hr x "&{$LaborTimePerFixture$}&" hrs/fixture x "&{$NumberOfFixtures$}&" fixtures Lamp costs were estimated at $"&{$LampCost$}&"/lamp x "&{$NumberOfFixtures$ \* $LampsPerFixture$}&" lamps Ballast costs were estimated at $"&{$BallastCost$}&" x "&{$NumberOfFixtures$}&" fixtures and increased O&M costs of $"&{$O&MCost$}&"/year "&IF(Heat\_Cool="No","","Energy savings take into account interactions with the heating and cooling systems") |