

Case Study



Installation Site:

City of Muscatine Vehicle Maintenance Shop
 1459 Washington St., Muscatine, IA 52761



BEFORE

Load Data

Fixture Quantity	43
Input Watts Each Fixture	465W
Total System Input Watts	19,995W
System Kilowatts	19.995KW
Amps (at 277v)	72.18A

Fixture Data

Rated Lamp Wattage	400W
Fixture Type	HPS High Bay Aluminum Rfl.
Lamp Type	High Pressure Sodium
Mounting Height	25'
Spacing	Varied

Light Level

Footcandles were not measured. Priority was energy savings and color improvement. Levels were poor and inconsistent. Complaints were high about color and ability to see.

Operational Costs

Typical Cost to Operate for 1 Year
 (8760 hrs at \$.10 per KWh) **\$17,515.62**



AFTER

Load Data

Fixture Quantity	43
Input Watts Each Fixture	226W
Total System Input Watts	9718W
System Kilowatts	9.7KW
Amps (at 120v)	35.08A

Fixture Data

Rated Lamp Wattage	192W (6x32W)
Fixture Type	Zmax 68 HP M4
Lamp Type	T8 SCB 5000
Mounting Height	25'
Spacing	Varied; same as original

Light Level

Footcandles were not measured. Levels were obviously an improvement and uniform. Color and see-ability were greatly improved and vastly commented on.

Operational Costs

Typical Cost to Operate for 1 Year
 (8760 hrs at \$.10 per KWh) **\$8512.97**

Annual Energy Savings \$8,999.65