

Project Summary
Sample Municipal Facility Proposal
San Diego, CA 92007-7077



Quantities

Fixtures Surveyed	282
Fixtures to be Upgraded by ECMs*	256
<i>* Energy Conservation Measures</i>	

Energy Comparison and Annual Savings

Existing Energy Consumption: kWh		119,417
Lighting Energy Cost:	<i>0.150 per kWh</i>	\$ 17,913
Proposed Energy Consumption: kWh		47,790
Lighting Energy Cost:	<i>0.150 per kWh</i>	\$ 7,169
Annual Energy Savings: kWh		71,627
Annual Savings		
Lighting Energy Savings		\$ 10,744
Air Conditioning Savings*		\$ 82
Maintenance Savings*		\$ 634
Total Annual Savings		\$ 11,459
Energy Avoidance %		59.98%

Project Cost

Project Cost	\$27,604
SDG&E Rebate	\$3,040
Net Project Cost	\$24,564

Cash Flow Analyses

	1-Year	5-Year	7-Year	10-Year
Additional Cash Flow - Lease-Purchase Option A	\$ 10,926	\$ 45,817	\$ 65,414	\$ 97,748
Additional Cash Flow - Lease-Purchase Option B	\$ 8,280	\$ 44,745	\$ 65,129	\$ 98,643
Additional Cash Flow - Lump-Sum Purchase Option C	\$ (13,105)	\$ 36,079	\$ 62,822	\$ 105,875

Environmental Impact

Reduced Air Pollution	1-Year	5-Year	7-Year	10-Year
Pounds of Carbon Dioxide Emissions	114,603	573,014	802,220	1,146,028
Pounds of Sulphur Dioxide Emissions	836	4,181	5,853	8,362
Pounds of Nitrogen Oxides Emissions	442	2,209	3,092	4,418

* Estimated

Sample Municipal Facility Proposal

Cash Flow and ROI Analysis: Lease-Purchase Option A. (Finance Gross Amount)



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Lighting Energy Savings (\$)/Year*	\$ 10,744	\$ 11,066	\$ 11,398	\$ 11,740	\$ 12,092	\$ 12,455	\$ 12,829	\$ 13,214	\$ 13,610	\$ 14,018	\$ 123,168
Air Conditioning Savings (\$)/Year	\$ 82	\$ 84	\$ 87	\$ 89	\$ 92	\$ 95	\$ 97	\$ 100	\$ 103	\$ 106	\$ 935
Maintenance Savings (\$)/Year	\$ 634	\$ 634	\$ 634	\$ 634	\$ 634	\$ 634	\$ 634	\$ 634	\$ 634	\$ 634	\$ 6,336
Annual Savings	\$ 11,459	\$ 11,784	\$ 12,118	\$ 12,463	\$ 12,818	\$ 13,183	\$ 13,560	\$ 13,948	\$ 14,347	\$ 14,759	\$ 130,439
Rebate Amount	\$ 3,040										
Annual Lease Purchase Payment	\$ 3,573	\$ 3,573	\$ 3,573	\$ 3,573	\$ 3,573	\$ 3,573	\$ 3,573	\$ 3,573	\$ 3,573	\$ 3,573	\$ 35,731
Cumulative Cash Flow	\$ 10,926	\$ 19,137	\$ 27,682	\$ 36,572	\$ 45,817	\$ 55,427	\$ 65,414	\$ 75,789	\$ 86,563	\$ 97,748	\$ 97,748

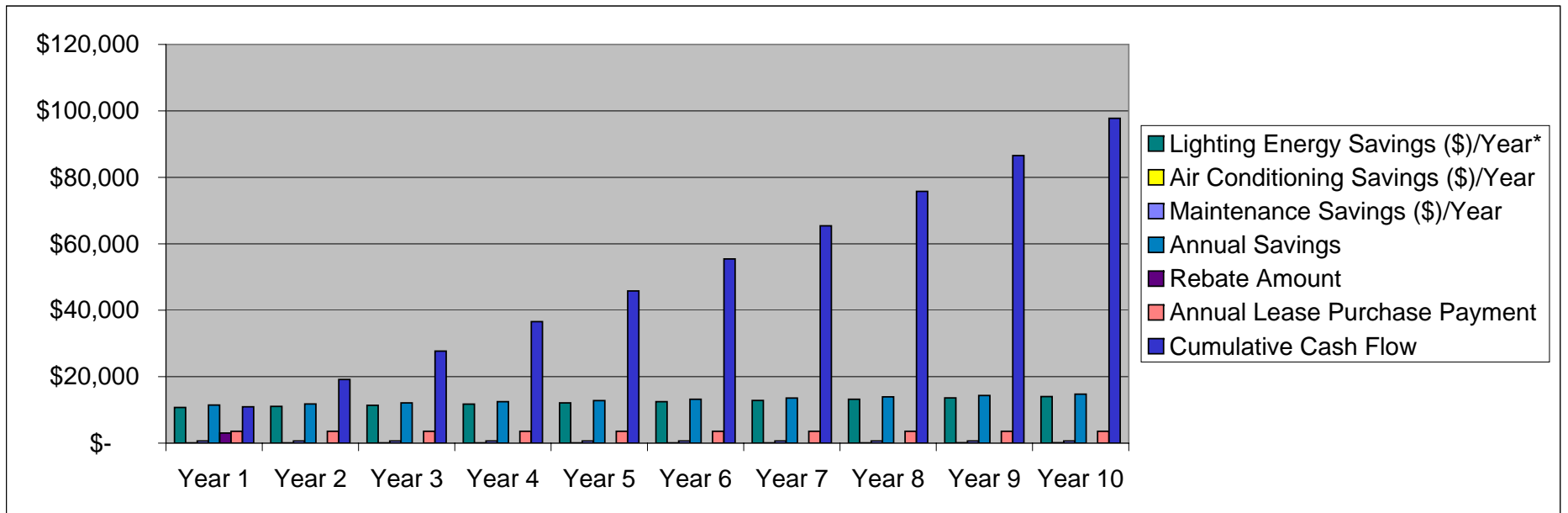
Total Lease Purchase Payments (Total Cost)**	\$ 35,731
Annual Lease/Purchase Payment - (10 payments)	\$ 3,573
Additional Cash Flow (10 years)	\$ 97,748
ROI (Lighting Only)	244.71%
ROI (Lighting, Maintenance, HVAC)	265.06%

Notes:

* Assumes energy costs rise 3%/yr.

** Total Lease Purchase Payments (Total Cost)

1. Amount to be Financed (Gross Project Cost)	\$ 27,604
2. Term - Number of Years	10
3. Interest Rate	4.99%



Sample Municipal Facility Proposal

Cash Flow and ROI Analysis: Lease-Purchase Option B. (Finance Net Amount)



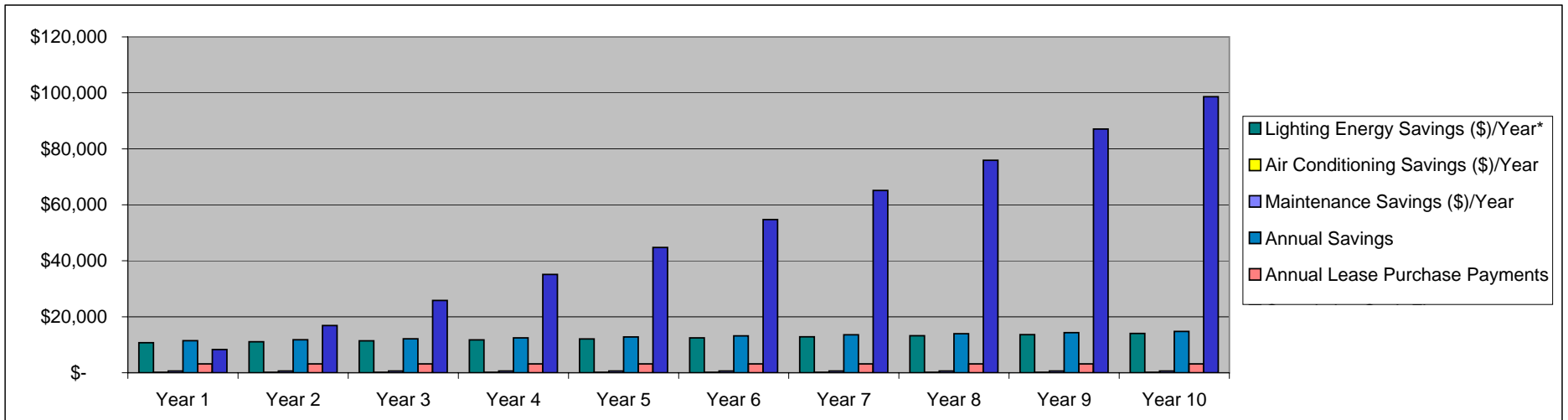
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Lighting Energy Savings (\$)/Year*	\$ 10,744	\$ 11,066	\$ 11,398	\$ 11,740	\$ 12,092	\$ 12,455	\$ 12,829	\$ 13,214	\$ 13,610	\$ 14,018	\$ 123,168
Air Conditioning Savings (\$)/Year	\$ 82	\$ 84	\$ 87	\$ 89	\$ 92	\$ 95	\$ 97	\$ 100	\$ 103	\$ 106	\$ 935
Maintenance Savings (\$)/Year	\$ 634	\$ 634	\$ 634	\$ 634	\$ 634	\$ 634	\$ 634	\$ 634	\$ 634	\$ 634	\$ 6,336
Annual Savings	\$ 11,459	\$ 11,784	\$ 12,118	\$ 12,463	\$ 12,818	\$ 13,183	\$ 13,560	\$ 13,948	\$ 14,347	\$ 14,759	\$ 130,439
Annual Lease Purchase Payments	\$ 3,180	\$ 3,180	\$ 3,180	\$ 3,180	\$ 3,180	\$ 3,180	\$ 3,180	\$ 3,180	\$ 3,180	\$ 3,180	\$ 31,796
Cumulative Cash Flow	\$ 8,280	\$ 16,884	\$ 25,823	\$ 35,106	\$ 44,745	\$ 54,748	\$ 65,129	\$ 75,897	\$ 87,064	\$ 98,643	\$ 98,643
Total Lease Purchase Payments (Total Cost) **	\$ 31,796										
Annual Lease/Purchase Payment - (10 payments)	\$ 3,180										
Additional Cash Flow (10 years)	\$ 98,643										
ROI (Lighting Only)	287.37%										
ROI (Lighting, Maintenance, HVAC)	310.24%										

Notes:

* Assumes energy costs rise 3%/yr.

** Total Lease Purchase Payments (Total Cost)

- 1. Amount to be Financed (Gross Project Cost) \$ 24,564
- 2. Term - Number of Years 10
- 3. Interest Rate 4.99%



Sample Municipal Facility Proposal

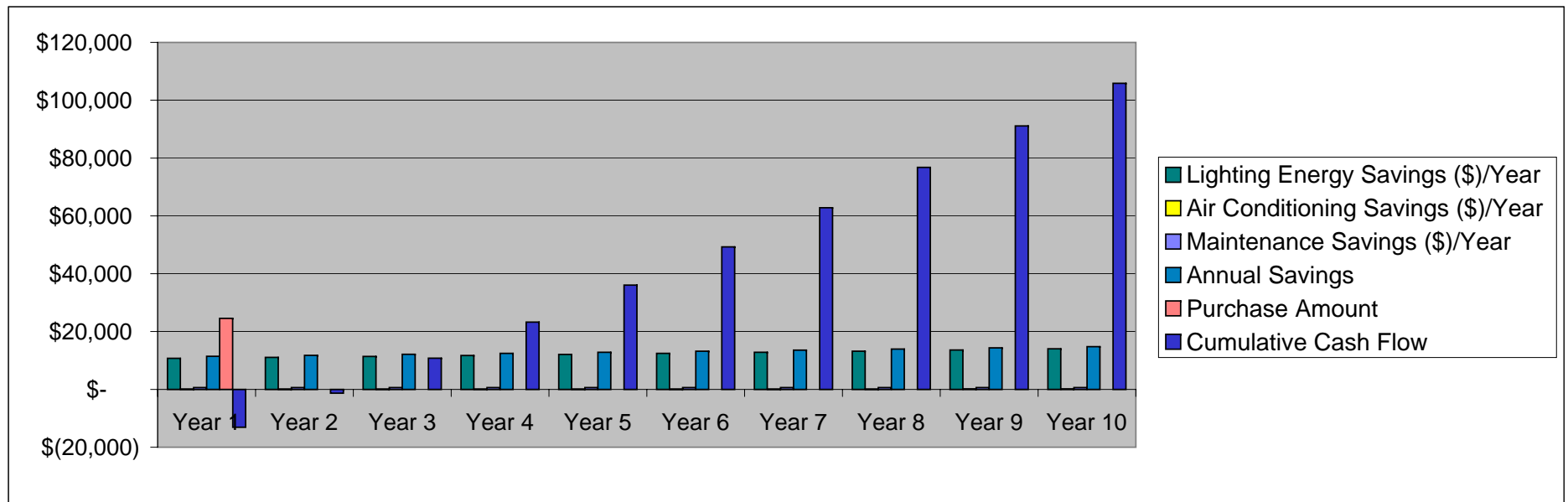
ROI Analysis: 10-Year Lump-Sum Purchase



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Lighting Energy Savings (\$)/Year	\$ 10,744	\$ 11,066	\$ 11,398	\$ 11,740	\$ 12,092	\$ 12,455	\$ 12,829	\$ 13,214	\$ 13,610	\$ 14,018	\$ 123,168
Air Conditioning Savings (\$)/Year	\$ 82	\$ 84	\$ 87	\$ 89	\$ 92	\$ 95	\$ 97	\$ 100	\$ 103	\$ 106	\$ 935
Maintenance Savings (\$)/Year	\$ 634	\$ 634	\$ 634	\$ 634	\$ 634	\$ 634	\$ 634	\$ 634	\$ 634	\$ 634	\$ 6,336
Annual Savings	\$ 11,459	\$ 11,784	\$ 12,118	\$ 12,463	\$ 12,818	\$ 13,183	\$ 13,560	\$ 13,948	\$ 14,347	\$ 14,759	\$ 130,439
Purchase Amount	\$ 24,564										
Cumulative Cash Flow	\$ (13,105)	\$ (1,321)	\$ 10,798	\$ 23,261	\$ 36,079	\$ 49,262	\$ 62,822	\$ 76,770	\$ 91,117	\$ 105,875	\$ 105,875

Total Installation Cost	\$ 24,564
Additional Cash Flow (5 years)	\$ 105,875
Total Savings (10 Years)	\$ 130,439
ROI (Lighting Only)	401.42%
ROI (Lighting, Maintenance, HVAC)	431.02%

* Assumes energy costs rise 3%/yr.



Sample Municipal Facility Proposal
San Diego, CA 92007-7077

Date: Special Instructions

Existing Conditions										Energy Efficient Solution							Annual Savings		
ECM #	AREA	Count	Fixture Code	MO	Fixture Type	Fixture Description	AHO	Watts Fixture	Existing kWh	Count	ECM Measure	Measure Description	Watts Fixture	O/S % On	AHO	ECM kWh	Annual Savings kWh	Annual Savings \$\$\$	Annual Savings kW
1	Garage	10	ES82HOS	H	8' Strip	2 Lamp F96 T12 HO 8' 95 Watt	2600	227	5,902	10	MD93	Remove 2 - 8' HO Lamps & Install 4 - MaxLite F032T8 841 Lamps & MaxLite 120 volt High Power Ballast & White Powdercoat Reflector	152	1.00	2600	3,952	1,950	292.50	0.750
2	Conference Room	4	ES244T	R	2'X4' Trof	4 Lamp F40 T12 4' 34 Watt	1300	164	853	4	MD56	Remove 4 - 4' Lamps & Install 2 - MaxLite F032T8 841 Lamps & MaxLite 120 volt Standard Ballast & White Powdercoat Reflector	59	1.00	1300	307	546	81.90	0.420
3	Lunch Room	6	ES242T	L	2'X4' Trof	2 Lamp F40 T12 4' 34 Watt	4015	82	1,975	6	MD28	Remove 2 - 4' Lamps & Install 2 - MaxLite F032T8 841 Lamps & MaxLite 120 volt Low Power Ballast	52	1.00	4015	1,253	723	108.41	0.180
4	Bath	1	ES243T	R	2'X4' Trof	3 Lamp F40 T12 4' 34 Watt	1095	122	134	1	MD40	Remove 3 - 4' Lamps & Install 2 - MaxLite F032T8 841 Lamps & MaxLite 120 volt Low Power Ballast & White Powdercoat Reflector	52	0.80	876	46	88	13.21	0.070
5	Showers	2	I60A	S	Incand.	A 60 Watt Bulb	1095	60	131	2	CFL02	Remove Incandescent Bulb & Replace with Energy-Efficient 15 Watt CFL	15	1.00	1095	33	99	14.78	0.090
6	Locker Room	5	ES242T	L	2'X4' Trof	2 Lamp F40 T12 4' 34 Watt	3650	82	1,497	5	MD28	Remove 2 - 4' Lamps & Install 2 - MaxLite F032T8 841 Lamps & MaxLite 120 volt Low Power Ballast	52	0.80	2920	759	737	110.60	0.150
7	Operations	9	ES242T	L	2'X4' Trof	2 Lamp F40 T12 4' 34 Watt	3650	82	2,694	9	MD28	Remove 2 - 4' Lamps & Install 2 - MaxLite F032T8 841 Lamps & MaxLite 120 volt Low Power Ballast	52	1.00	3650	1,708	986	147.83	0.270
8	Operations	32	ES243T	R	2'X4' Trof	3 Lamp F40 T12 4' 34 Watt	3650	122	14,250	32	MD40	Remove 3 - 4' Lamps & Install 2 - MaxLite F032T8 841 Lamps & MaxLite 120 volt Low Power Ballast & White Powdercoat Reflector	52	1.00	3650	6,074	8,176	1,226.40	2.240
9	Operations	21	ES244T	R	2'X4' Trof	4 Lamp F40 T12 4' 34 Watt	3650	164	12,571	21	MD56	Remove 4 - 4' Lamps & Install 2 - MaxLite F032T8 841 Lamps & MaxLite 120 volt Standard Ballast & White Powdercoat Reflector	59	1.00	3650	4,522	8,048	1,207.24	2.205
10	Administration	20	ES244T	R	2'X4' Trof	4 Lamp F40 T12 4' 34 Watt	2600	164	8,528	20	MD56	Remove 4 - 4' Lamps & Install 2 - MaxLite F032T8 841 Lamps & MaxLite 120 volt Standard Ballast & White Powdercoat Reflector	59	1.00	2600	3,068	5,460	819.00	2.100
11	Head Works	4	ES42S	L	4' Strip	2 Lamp F40 T12 4' 34 Watt	1825	82	599	4	MD28	Remove 2 - 4' Lamps & Install 2 - MaxLite F032T8 841 Lamps & MaxLite 120 volt Low Power Ballast	52	1.00	1825	380	219	32.85	0.120
12	Primary Gallery	20	ES42S	L	4' Strip	2 Lamp F40 T12 4' 34 Watt	3650	82	5,986	20	MD28	Remove 2 - 4' Lamps & Install 2 - MaxLite F032T8 841 Lamps & MaxLite 120 volt Low Power Ballast	52	0.80	2920	3,037	2,949	442.38	0.600
13	Feb Control Room	3	ES42S	L	4' Strip	2 Lamp F40 T12 4' 34 Watt	1825	82	449	3	MD28	Remove 2 - 4' Lamps & Install 2 - MaxLite F032T8 841 Lamps & MaxLite 120 volt Low Power Ballast	52	0.80	1460	228	221	33.18	0.090

14	Aeration Room	6	ES42S	L	4' Strip	2 Lamp F40 T12 4' 34 Watt	3650	82	1,796	6	MD28	Remove 2 - 4' Lamps & Install 2 - MaxLite F032T8 841 Lamps & MaxLite 120 volt Low Power Ballast	52	0.80	2920	911	885	132.71	0.180
15	Blower Room	20	HPS150HB	NF	HPS	150 Watt High Pressure Sodium	3650	195	14,235	20	INF14	Precision VPT-CTD-2-1X4-2L54-UL1	118	1.00	3650	8,614	5,621	843.15	1.540
400		282							119,417	256					47,790	71,627	10,744.01	20.55	

VARIABLES (KEY)

EXISTING CONDITION

- ECM:** Energy Control Measure per each Existing / Recommended replacement
- AREA:** Location of Existing fixture
- Fixture:** Description of Existing fixture
- Count:** Existing Fixtures
- Watts:** Per IEE published ratings
- AHO:** Average Hours of Operation
- KWh:** Annual Energy Consumed (Fixture Wattage x AHO)

ECM EFFICIENT SOLUTION

- ECM:** Recommended replacement of existing technology
- Count:** Recommended for ECM
- Watts:** Per manufacturers published rating
- O/S % On:** % Occupancy Sensor On
- AHO:** Average Hours of Operation

BENEFITS

Existing KWh:	119,417
Proposed KWh:	47,790
Annual KWh Savings:	71,627
% Energy Saved	59.98%
Existing \$\$\$ Cost:	17,912.52
ECM Efficient \$\$\$ Cost:	7,168.51
Annual \$\$\$ Savings:	10,744.01
Existing KW:	37.10
ECM KW:	21.08
Annual KW Savings:	16.02
Utility:	SDG&E
Utility Rate:	0.150
Utility Rebate:	3,040.25

EPACT 2005 TAX DEDUCTION

Square Feet:	-
ASHRAE Light Power Density Standard:	-
Existing Watts/Sq. Ft.:	#DIV/0!
Proposed ECM Efficient Watts/Sq. Ft.:	#DIV/0!
% Reduction Watt/Sq. Ft.:	#DIV/0!
For \$.30 Fed Tax Deduction Watts/Sq.Ft. must be < than:	-
For maximum \$.60 Fed Tax Deduction Watts/Sq.Ft. must be <= to:	-
Allowable Square Foot Fed Tax Deduction Based On ECM Measures	\$0.60
Maximum Allowable Tax Deduction is (Sq. Ft. Deduction X Sq. Ft.)	\$0.00
Tax Deduction Limited by Net Project Cost if less than maximum allowable:	\$24,563.75