

# Full Report



#### **Prepared For**

### **Prepared By**

North American Sales Group
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#### Company

North American Sales Group is a lighting company that specializes in assisting our customers with a turn-key energy efficient lighting solution.

The company focuses on providing superior lighting and energy saving solutions and services to our customers through innovative design, function and state-of-the-art technologies. The key to our success is our unwavering promise we make to every customer; to deliver a new generation LED lighting product based on the latest R&D, an unending commitment to challenging the conventional lighting market, and to create LED lighting solutions that meet and exceed expectations.

Strict adherence to international quality standards and control measures drive down maintenance costs for more efficient business performance.

The benefits of energy-efficient LEDs are endless, beginning with longevity. Longer-lasting lamps can directly affect your company's bottom line.





#### Investment

**Net Savings** 

\$ 163,228

Simple Payback

**1.71 years** 

Simple ROI

58.6%

### **Savings**

**Total Project Savings** 

\$177,792

**Annual Cost Savings** 

\$8,534

**Annual Energy Savings** 

85,339 kWh

#### **Costs**

**Total Project Cost** 

\$ 21,214

- Incentives

\$6,650

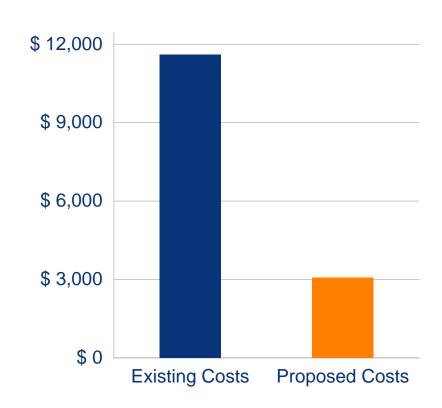
**Net Project Cost** 

\$ 14,564



## **Annual Operating Costs**

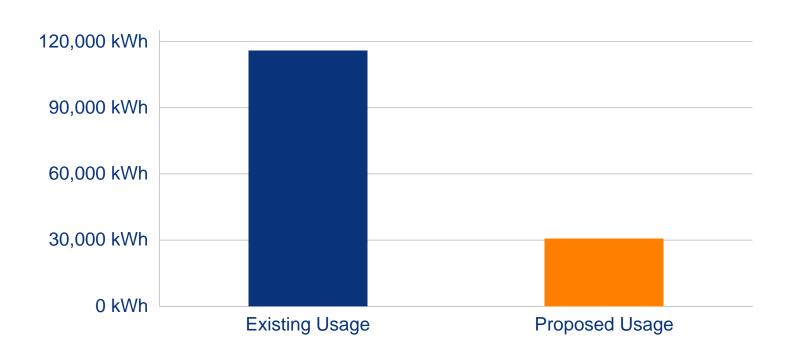




Annual Operating Costs	Existing	Proposed	Savings	Reduction
Electrical	\$ 11,604	\$ 3,070	\$ 8,534	74%
Maintenance	\$ 0	\$ 0	\$ 0	0%
Annual Total	\$ 11,604	\$ 3,070	\$ 8,534	74%



## **Annual Energy Consumption**



## **Energy Savings**

**Existing Energy Consumed** 

116,039 kWh

- Proposed Energy Consumed

30,700 kWh

**Annual Energy Savings** 

85,339 kWh



### **Environmental Impact**

This project will reduce carbon emissions by approximately 58.85 metric tons each year, which is equal to the greenhouse gases produced by the following:



Gas Consumed 6,622 gallons



Barbeque Propane **2,452 tanks** 



Coal Burned 63,207 pounds



Oil Consumed

137 barrels

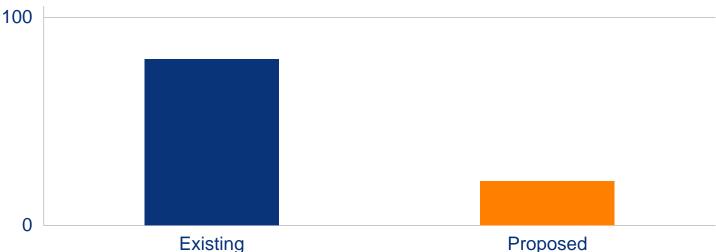


Passenger Vehicle
140,109 miles



Waste Sent To Landfill **42,183 pounds** 

#### **Annual Carbon Dioxide Emissions (Metric Tons)**







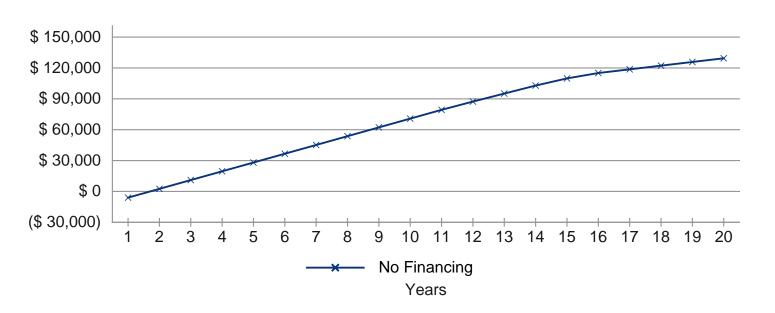
# **Project Costs Summary**

Total Product Costs	\$ 16,914
+ Installation & Labor Costs	\$ 3,500
+ Shipping Costs	\$ 800
+ Misc Costs	\$ 0
Total Project Cost	\$ 21,214

- Incentives	\$ 6,650
Net Project Cost	\$ 14,564



### **Cash Flow**

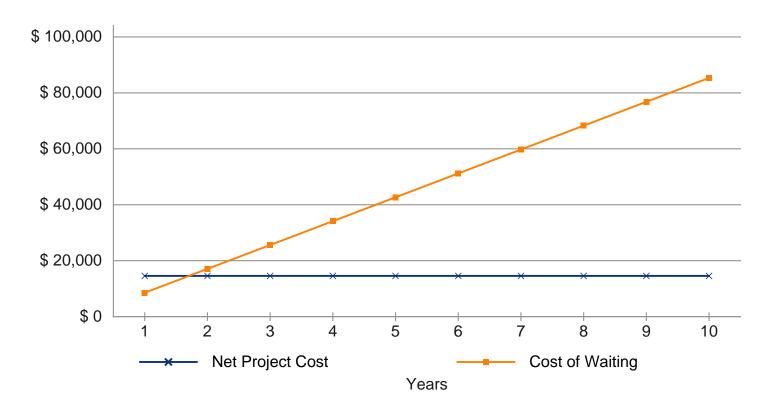


Year	<b>Payments</b>	Savings	Rebates	<b>Cash Flow</b>	<b>Cumulative Total</b>
1	(\$ 21,214)	\$ 8,534	\$ 6,650	(\$ 6,030)	(\$ 6,030)
2	\$ 0	\$ 8,534	\$ 0	\$ 8,534	\$ 2,504
3	\$ 0	\$ 8,534	\$ 0	\$ 8,534	\$ 11,038
4	\$ 0	\$ 8,534	\$ 0	\$ 8,534	\$ 19,572
5	\$ 0	\$ 8,534	\$ 0	\$ 8,534	\$ 28,106
6	\$ 0	\$ 8,534	\$ 0	\$ 8,534	\$ 36,640
7	\$ 0	\$ 8,534	\$ 0	\$ 8,534	\$ 45,174
8	\$ 0	\$ 8,534	\$ 0	\$ 8,534	\$ 53,708
9	\$ 0	\$ 8,534	\$ 0	\$ 8,534	\$ 62,241
10	\$ 0	\$ 8,534	\$ 0	\$ 8,534	\$ 70,775
11	\$ 0	\$ 8,534	\$ 0	\$ 8,534	\$ 79,309
12	\$ 0	\$ 8,029	\$ 0	\$ 8,029	\$ 87,339
13	\$ 0	\$ 7,777	\$ 0	\$ 7,777	\$ 95,116
14	\$ 0	\$ 7,777	\$ 0	\$ 7,777	\$ 102,893
15	\$ 0	\$ 6,974	\$ 0	\$ 6,974	\$ 109,867
16	\$ 0	\$ 5,218	\$ 0	\$ 5,218	\$ 115,084
17	\$ 0	\$ 3,582	\$ 0	\$ 3,582	\$ 118,666
18	\$ 0	\$ 3,582	\$ 0	\$ 3,582	\$ 122,248
19	\$ 0	\$ 3,582	\$ 0	\$ 3,582	\$ 125,830
20	\$ 0	\$ 3,582	\$ 0	\$ 3,582	\$ 129,412
	(\$ 21,214)	\$ 143,976	\$ 6,650	\$ 129,412	\$ 129,412



# **Cost of Waiting**







## **Proposed Solutions Summary**

Exterior Savings/yr: \$ 2,541

Existing	Proposed	Count	Life	Cost	Incentives	Net \$	ROI	Payback	Save/yr
Metal Halide Pulse Start, (1) 175W lamp w/ Super Constant Wattage Autotransforme	SEPICN 36W LED Wall Pack	10	11 yrs	\$ 1,700	\$ 750	\$ 950	79.7%	1.26 yrs	\$ 757
Metal Halide, (1) 400W lamp	PlanLED 130W	12	16 yrs	\$ 6,480	\$ 600	\$ 5,880	30.4%	3.29 yrs	\$ 1,785

**Gymnasium** Savings/yr: \$ 2,230

Existing	Propose	d	Count	Life	Cost	Incentives	Net \$	ROI	Payback	Save/yr
Metal Halide, (1) 400W		EFL130W	20	29 yrs	\$ 6,320	\$ 4,000	\$ 2,320	96.1%	1.04 yrs	\$ 2,230
lamp	LED High E	Bay								



#### **Offices and Classrooms**

Savings/yr: \$ 1,352

Existing	Proposed	Count	Life	Cost	Incentives	Net \$	ROI	Payback	Save/yr
Fluorescent, (3) 48 T-8 lamp Instant Start Ballast NLO (BF: .8595)	GLO 12W LED Magic Tube	75	29 yrs	\$ 4,410	\$ 900	\$ 3,510	38.5%	2.60 yrs	\$ 1,352

Savings/yr: \$ 2,411

Existing	Proposed	Count	Life	Cost	Incentives	Net \$	ROI	Payback	Save/yr
Incandescent, (1) 100W lamp	SEPICN 18W R40 3000K, 1400 Lumens	50	15 yrs	\$ 910	\$ 400	\$ 510	273.3%	0.37 yrs	\$ 1,394
Metal Halide Pulse Start, (1) 320W lamp w/ Linear Reactor Ballast	GLO 50W LED Rose Lamp 3000K	10	15 yrs	\$ 1,394	\$ 0	\$ 1,394	72.9%	1.37 yrs	\$ 1,017

Provided by North American Sales Group Page 12/30



#### **Exterior**

## **Existing**

Metal Halide Pulse Start, (1) 175W lamp w/ Super Constant Wa...

Watts Per Fixture 208

Lamp Hours Per Fixture 10,000

Thermal Efficiency Per Fixture

## **Proposed**

SEPICN 36W LED Wall Pack

Watts Per Fixture 36

Lamp Hours Per Fixture 50,000

Thermal Efficiency Per Fixture

Simple Payback

1.26 yrs

Simple ROI

79.7%

**Net Savings** 

\$7,650

	Existing	Proposed	Difference
Quantity	10	10	0
Total Annual Electricity Consumed	9,152 kWh	1,584 kWh	7,568 kWh
Lamp Life	2.3 yrs	11.4 yrs	9.1 yrs
Heat Output	0 kWh	0 kWh	0 kWh
Annual Usage Per Fixture	4,400 hrs	4,400 hrs	0 hrs



## **Exterior**

Area	Existing	Proposed
Exterior	Metal Halide Pulse Start, (1)	SEPICN 36W LED Wall Pack

Annual Operating Costs & Savings	Existing	Proposed	Difference
Electrical Costs	\$ 915	\$ 158	\$ 757
Maintenance Costs	\$ 0	\$ 0	\$ 0
Heating Costs	\$ 0	\$ 0	\$ C
Cooling Costs	\$ 0	\$ 0	\$ 0
Total Annual Operating Costs	\$ 915	\$ 158	\$ 757

Solution Costs	Quantity	Unit Costs	Total
Product Cost	10	120.00	\$ 1,200.00
+ Installation Cost	10	\$ 40.00	\$ 400.00
+ Tax	10	\$ 0.00	\$ 0.00
+ Shipping Costs	10	\$ 10.00	\$ 100.00
+ Misc Costs	10	\$ 0.00	\$ 0.00
Gross Solution Cost	10	\$ 170.00	\$ 1,700.00
- Incentives	10	\$ 75.00	\$ 750.00
Net Solution Cost	10	\$ 95.00	\$ 950.00



### **Exterior**

## **Existing**

Metal Halide, (1) 400W lamp

Watts Per Fixture 458

Lamp Hours Per Fixture 10,000

Thermal Efficiency Per Fixture

## **Proposed**

PlanLED 130W

Watts Per Fixture 120

Lamp Hours Per Fixture 70,000

Thermal Efficiency Per Fixture

Simple Payback

3.29 yrs

Simple ROI

30.4%

**Net Savings** 

\$ 22,512

	Existing	Proposed	Difference
Quantity	12	12	0
Total Annual Electricity Consumed	24,182 kWh	6,336 kWh	17,846 kWh
Lamp Life	2.3 yrs	15.9 yrs	13.6 yrs
Heat Output	0 kWh	0 kWh	0 kWh
Annual Usage Per Fixture	4,400 hrs	4,400 hrs	0 hrs



## **Exterior**

Area	Existing	Proposed
Exterior	Metal Halide, (1) 400W lamp	PlanLED 130W

Annual Operating Costs & Savings	Existing	Proposed	Difference
Electrical Costs	\$ 2,418	\$ 634	\$ 1,785
Maintenance Costs	\$ 0	\$ 0	\$ C
Heating Costs	\$ 0	\$ 0	\$ 0
Cooling Costs	\$ 0	\$ 0	\$ 0
Total Annual Operating Costs	\$ 2,418	\$ 634	\$ 1,785

<b>Solution Costs</b>	Quantity	<b>Unit Costs</b>	Total
Product Cost	12	480.00	\$ 5,760.00
+ Installation Cost	12	\$ 50.00	\$ 600.00
+ Tax	12	\$ 0.00	\$ 0.00
+ Shipping Costs	12	\$ 10.00	\$ 120.00
+ Misc Costs	12	\$ 0.00	\$ 0.00
Gross Solution Cost	12	\$ 540.00	\$ 6,480.00
- Incentives	12	\$ 50.00	\$ 600.00
Net Solution Cost	12	\$ 490.00	\$ 5,880.00



## **Gymnasium**

## **Existing**

Metal Halide, (1) 400W lamp

Watts Per Fixture 458

Lamp Hours Per Fixture 10,000

Thermal Efficiency Per Fixture

## **Proposed**

PlanLED EFL130W LED High Bay

Watts Per Fixture 130

Lamp Hours Per Fixture 100,000

Thermal Efficiency Per Fixture

Simple Payback

1.04 yrs

Simple ROI

96.1%

**Net Savings** 

\$63,280

	Existing	Proposed	Difference
Quantity	20	20	0
Total Annual Electricity Consumed	31,144 kWh	8,840 kWh	22,304 kWh
Lamp Life	2.9 yrs	29.4 yrs	26.5 yrs
Heat Output	0 kWh	0 kWh	0 kWh
Annual Usage Per Fixture	3,400 hrs	3,400 hrs	0 hrs



# **Gymnasium**

Area	Existing	Proposed
Gymnasium	Metal Halide, (1) 400W lamp	PlanLED EFL130W LED High Bay

Annual Operating Costs & Savings	Existing	Proposed	Difference
Electrical Costs	\$ 3,114	\$ 884	\$ 2,230
Maintenance Costs	\$ 0	\$ 0	\$ 0
Heating Costs	\$ 0	\$ 0	\$ 0
Cooling Costs	\$ 0	\$ 0	\$0
Total Annual Operating Costs	\$ 3,114	\$ 884	\$ 2,230

<b>Solution Costs</b>	Quantity	<b>Unit Costs</b>	Total
Product Cost	20	246.00	\$ 4,920.00
+ Installation Cost	20	\$ 50.00	\$ 1,000.00
+ Tax	20	\$ 0.00	\$ 0.00
+ Shipping Costs	20	\$ 20.00	\$ 400.00
+ Misc Costs	20	\$ 0.00	\$ 0.00
Gross Solution Cost	20	\$ 316.00	\$ 6,320.00
- Incentives	20	\$ 200.00	\$ 4,000.00
Net Solution Cost	20	\$ 116.00	\$ 2,320.00



#### **Offices and Classrooms**

## **Existing**

Fluorescent, (3) 48 T-8 lamp Instant Start Ballast NLO (BF: ...

Watts Per Fixture 89

Lamp Hours Per Fixture 24,000

Thermal Efficiency Per Fixture

**Proposed** 

GLO 12W LED Magic Tube

Watts Per Fixture 36

Lamp Hours Per Fixture 100,000

Thermal Efficiency Per Fixture

Simple Payback

2.60 yrs

Simple ROI

38.5%

**Net Savings** 

\$ 36,240

	Existing	Proposed	Difference
Quantity	75	75	0
Total Annual Electricity Consumed	22,695 kWh	9,180 kWh	13,515 kWh
Lamp Life	7.1 yrs	29.4 yrs	22.4 yrs
Heat Output	0 kWh	0 kWh	0 kWh
Annual Usage Per Fixture	3,400 hrs	3,400 hrs	0 hrs



## **Offices and Classrooms**

Area	Existing	Proposed
Offices and Classrooms	Fluorescent, (3) 48 T-8 lamp I	GLO 12W LED Magic Tube

Annual Operating Costs & Savings	Existing	Proposed	Difference
Electrical Costs	\$ 2,270	\$ 918	\$ 1,352
Maintenance Costs	\$ 0	\$ 0	\$ C
Heating Costs	\$ 0	\$ 0	\$ 0
Cooling Costs	\$ 0	\$ 0	\$ 0
Total Annual Operating Costs	\$ 2,270	\$ 918	\$ 1,352

Solution Costs	Quantity	Unit Costs	Total
Product Cost	75	46.80	\$ 3,510.00
+ Installation Cost	75	\$ 10.00	\$ 750.00
+ Tax	75	\$ 0.00	\$ 0.00
+ Shipping Costs	75	\$ 2.00	\$ 150.00
+ Misc Costs	75	\$ 0.00	\$ 0.00
Gross Solution Cost	75	\$ 58.80	\$ 4,410.00
- Incentives	75	\$ 12.00	\$ 900.00
Net Solution Cost	75	\$ 46.80	\$ 3,510.00



## **Sanctuary**

## **Existing**

Metal Halide Pulse Start, (1) 320W lamp w/ Linear Reactor Ba...

Watts Per Fixture 349

Lamp Hours Per Fixture 10,000

Thermal Efficiency Per Fixture

### **Proposed**

GLO 50W LED Rose Lamp 3000K

Watts Per Fixture 50

Lamp Hours Per Fixture 50,000

Thermal Efficiency Per Fixture

Simple Payback

1.37 yrs

Simple ROI

72.9%

**Net Savings** 

\$ 13,556

	Existing	Proposed	Difference
Quantity	10	10	0
Total Annual Electricity Consumed	11,866 kWh	1,700 kWh	10,166 kWh
Lamp Life	2.9 yrs	14.7 yrs	11.8 yrs
Heat Output	0 kWh	0 kWh	0 kWh
Annual Usage Per Fixture	3,400 hrs	3,400 hrs	0 hrs



# **Sanctuary**

Area	Existing	Proposed
Sanctuary	Metal Halide Pulse Start, (1)	GLO 50W LED Rose Lamp 3000K

Annual Operating Costs & Savings	Existing	Proposed	Difference
Electrical Costs	\$ 1,187	\$ 170	\$ 1,017
Maintenance Costs	\$ 0	\$ 0	\$ (
Heating Costs	\$ 0	\$ 0	\$ (
Cooling Costs	\$ 0	\$ 0	\$ (
Total Annual Operating Costs	\$ 1,187	\$ 170	\$ 1,017

Solution Costs	Quantity	Unit Costs	Total
Product Cost	10	86.40	\$ 864.00
+ Installation Cost	10	\$ 50.00	\$ 500.00
+ Tax	10	\$ 0.00	\$ 0.00
+ Shipping Costs	10	\$ 3.00	\$ 30.00
+ Misc Costs	10	\$ 0.00	\$ 0.00
Gross Solution Cost	10	\$ 139.40	\$ 1,394.00
- Incentives	10	\$ 0.00	\$ 0.00

10

\$ 139.40

**Net Solution Cost** 

\$1,394.00



## **Sanctuary**

## **Existing**

Incandescent, (1) 100W lamp

Watts Per Fixture 100

Lamp Hours Per Fixture 1,000

Thermal Efficiency Per Fixture

## **Proposed**

SEPICN 18W R40 3000K, 1400 Lumens

Watts Per Fixture 18

Lamp Hours Per Fixture 50,000

Thermal Efficiency Per Fixture

Simple Payback

0.37 yrs

Simple ROI

273.3%

**Net Savings** 

\$19,990

	Existing	Proposed	Difference
Quantity	50	50	0
Total Annual Electricity Consumed	17,000 kWh	3,060 kWh	13,940 kWh
Lamp Life	0.3 yrs	14.7 yrs	14.4 yrs
Heat Output	0 kWh	0 kWh	0 kWh
Annual Usage Per Fixture	3,400 hrs	3,400 hrs	0 hrs



# **Sanctuary**

Area	Existing	Proposed
Sanctuary	Incandescent, (1) 100W lamp	SEPICN 18W R40 3000K, 1400
		Lum

Annual Operating Costs & Savings	Existing	Proposed	Difference
Electrical Costs	\$ 1,700	\$ 306	\$ 1,394
Maintenance Costs	\$ 0	\$ 0	\$ 0
Heating Costs	\$ 0	\$ 0	\$ 0
Cooling Costs	\$ 0	\$ 0	\$ 0
<b>Total Annual Operating Costs</b>	\$ 1,700	\$ 306	\$ 1,394

Solution Costs	Quantity	Unit Costs	Total
Product Cost	50	13.20	\$ 660.00
+ Installation Cost	50	\$ 5.00	\$ 250.00
+ Tax	50	\$ 0.00	\$ 0.00
+ Shipping Costs	50	\$ 0.00	\$ 0.00
+ Misc Costs	50	\$ 0.00	\$ 0.00
Gross Solution Cost	50	\$ 18.20	\$ 910.00
- Incentives	50	\$ 8.00	\$ 400.00
Net Solution Cost	50	\$ 10.20	\$ 510.00



### **Materials List**

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Existing	Proposed	Quantity
Metal Halide Pulse Start, (1) 175W lamp w/ Super Constant Wattage Autotransformer Ballast	SEPICN 36W LED Wall Pack	10
Metal Halide, (1) 400W lamp	PlanLED 130W	12

### **Gymnasium**

Existing	Proposed	Quantity
Metal Halide, (1) 400W lamp	PlanLED EFL130W LED High Bay	20

#### **Offices and Classrooms**

Existing	Proposed	Quantity
Fluorescent, (3) 48 T-8 lamp Instant Start Ballast NLO (BF: .8595)	GLO 12W LED Magic Tube	75

#### **Sanctuary**

Existing	Proposed	Quantity
Metal Halide Pulse Start, (1) 320W lamp w/ Linear Reactor Ballast	GLO 50W LED Rose Lamp 3000K	10
Incandescent, (1) 100W lamp	SEPICN 18W R40 3000K, 1400 Lumens	50



#### **Estimate**

#### St. John's Lutheran Church

**Prepared For** 

**Prepared By** 

**Date** 

03/06/16

North American Sales Group Doug Jorgenson

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Pepin, Wisconsin 54759

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Product #	Description	Quantity	Unit Price	Total	
SEPICN 36W LED Wall Pack		10	\$ 120.00	\$ 1,200.00	
PlanLED 130W		12	\$ 480.00	\$ 5,760.00	
PlanLED EFL130W LED High Bay		20	\$ 246.00	\$ 4,920.00	
GLO 12W LED Magic Tube		75	\$ 46.80	\$ 3,510.00	
SEPICN 18W R40 3000K, 1400 Lumens		50	\$ 13.20	\$ 660.00	
GLO 50W LED Rose Lamp 3000K		10	\$ 86.40	\$ 864.00	



#### **Estimate**

## St. John's Lutheran Church

		Products Subtotal	\$ 16,914.00
		Installation Costs	\$ 3,500.00
Authorized Signature for North American Sales Group	Date	Shipping Costs	\$ 800.00
		Misc. Costs	\$ 0.00
		Pay This Amount	\$ 21,214.00
Authorized Signature for	Date	- Incentives	(\$ 6,650.00)
•		Net Cost	\$ 14,564.00

Please feel free to contact us if you have any questions regarding this proposal.





**Prepared For** 

#### **Prepared By**

**Date** 

03/06/16

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Product #	Description	Quantity	Unit Price	Total	
SEPICN 36W LED Wall Pack		10	\$ 120.00	\$ 1,200.00	
PlanLED 130W		12	\$ 480.00	\$ 5,760.00	
PlanLED EFL130W LED High Bay		20	\$ 246.00	\$ 4,920.00	
GLO 12W LED Magic Tube		75	\$ 46.80	\$ 3,510.00	
SEPICN 18W R40 3000K, 1400 Lumens		50	\$ 13.20	\$ 660.00	
GLO 50W LED Rose Lamp 3000K		10	\$ 86.40	\$ 864.00	



#### **Invoice**

## St. John's Lutheran Church

		Products Subtotal	\$ 16,914.00
		Installation Costs	\$ 3,500.00
Authorized Signature for North American Sales Group	Date	Shipping Costs	\$ 800.00
		Misc. Costs	\$ 0.00
		Pay This Amount	\$ 21,214.00
Authorized Signature for	Date	- Incentives	(\$ 6,650.00)
•		Net Cost	\$ 14,564.00

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### **Notes**

Thank you for the opportunity!