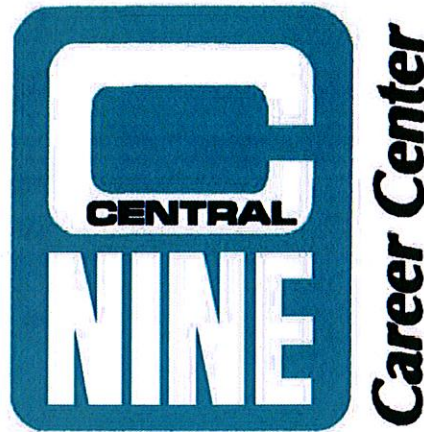




## Central Nine Career Center Parking Lot Lighting Upgrade Plasma Lighting Proposal



Prepared For:  
**Central Nine Career Center, Greenwood, IN**

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## Plasma Cobrahead Upgrade Summary

Objective: Leverage routine maintenance of lighting replacement to install new efficient fixtures to capture energy savings, new cycle plan longevity, maintenance savings, and custom rebate incentives.

Overview: Central Nine Career Center has a parking lot area that uses 29 400W metal halide conventional shoe box fixtures.

Existing Routine: Replace lamps that are out as well as poor light level fixtures.

Existing Maintenance Cost (not including materials): \$300 / Replacement

Proposal / Benefits: Plan to upgrade 29 400W fixtures to plasma light fixtures (295W).

- Over 35% energy savings for replacing 400W fixtures.
- Over 50,000 hour lamp life. Equivalent to over 13 years at 10hrs/day.
- Improved photometrics providing more surface area lighted.
- 19,300 total fixture lumens.
- Higher quality of light at 80 CRI
- Weather Tolerant (-40C to 45C)
- Industrial Grade Construction.
- 5 year manufacturer warranty
- Educational benefits

RTI Straylight has conducted a site audit of your parking lot and has collected data to help provide the best lighting solution to you and outline to you the potential savings. We are basing this proposal on the following assumptions:

- KWH cost of \$0.081/kwh
- Voltage of 277volts
- Hours of Usage at 10 hrs/day, 7 days/wk

As show in the tables to follow, the recommended upgrades to your lighting system will provide Central Nine Career Center with multiple areas of annual savings summarized through:

- Annual electric cost reduction of **\$1,646.18**
- Annual maintenance savings of **\$3,233.98**

The result: A **\$4,880 annual cost savings** with a project payback of **5.1 years.**

## Lighting Project Summary - Costs

RTI Straylight has assessed your current lighting and enclosed the following table to compare the current lighting with that of the proposed Plasma Cobrahead Fixtures.

High Pressure Sodium	Plasma (Tesla)
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### Fixture Wattage Costs

Lights Wattage Required	400	266
Fixture Wattage Required	465	273
Annual KWh Used (10 hrs per day)	1697	996
KWH Cost	0.081	0.081
Total Annual Cost @ \$0.06/kwh	\$ 137.48	\$ 80.71
Total Electricity Cost (13.7 Yrs)	\$ 1,883.44	\$ 1,105.76

Evaluating your annual maintenance, we've created the following table outlining estimated costs for current bulb and ballast replacement. Your estimated maintenance is approximately **\$111.52/fixture/year**. The table below provides a breakdown.

### Fixture Maintenance

	HPS	Plasma
Bulb Life (Hours) - 50,000 = 13.7 yrs	18,000	50,000
Bulb Replacements within 13.7 Yrs	2.8	0
Replacement Materials per Unit (Bulb)	\$ 25.00	\$ 195.00
Ballast Replacement Cost	\$ 200.00	\$ -
Ballast Replacements within 13.7 yrs	1.25	0
Cost of Replacement Labor per Unit Replacement	\$ 300.00	\$ 300.00
Total Cost per Replacement (Mat'l & Labor) Bulb	\$ 325.00	\$ -
Total Cost per Replacement (Mat'l & Labor) Ballast	\$ 500.00	\$ -
Total Annual Maintenance Cost / Unit	\$ 111.52	\$ -
Total Maintenance Cost / Unit (13.7 Yrs)	\$ 1,527.78	\$ -

Total annual costs for running your current lighting is roughly **\$248.99/unit** compared to the proposed LEP upgrade at **\$80.71/unit**. **That's a \$168.28 annual savings!!** A summary of these costs are included on the following table:

### Total Maintenance & Electrical Cost

	HPS	Plasma
Total Annual Maintenance & Electrical Cost	\$ 248.99	\$ 80.71
Total Maintenance & Electrical Cost (13.7 Yrs)	\$ 3,411.22	\$ 1,105.76

## Scope of Work

RTI Straylight has calculated the following project costs for providing 29 plasma cobraheads.

### Total Project Costs

Fixture Cost	\$ 850.00
Number of Fixtures	29
Total Cost of Materials & Labor	\$ 24,650.00

## Financial Summary

In summarizing your overall Project Investment to provide Central Nine Career Center an energy efficient lighting solution, RTI Straylight has calculated the following summary. With a retrofit of 29 plasma fixtures in place of your 29 MH fixtures, you will save approximately **\$4,880** annually which works out to be **5.1 years for your ROI**.

Current Adjusted Energy Cost (per KWH)	\$0.081
Existing Lighting Energy Usage (KWH)	49,220
Existing Lighting Energy Cost	\$3,987
Proposed Lighting Energy Usage (KWH)	28,897
Proposed Lighting Energy Cost	\$2,341
Annual Energy Cost Savings	\$1,646
Annual Maintenance Savings	\$3,234
Total Annual Cost Savings	\$4,880
Net Project Investment	\$24,650
Simple Payback (Years)	5.1
ROI (Not factoring financing costs)	19.8%

### Cost Avoidance and Benefit Consideration

- Increased Security
- Less occurrences of slip and fall accidents
- Increased Image of Central Nine Career Center - Green Efficiency/Visual Appeal
- Short term cost savings and savings increase over the long term

**Quote Includes:** 29 LEP Tesla II 277volt Cobrahead Light Fixtures w/ standard 1.5-2.5" circular mounting.

**Quote Excludes:** Motion sensors, dimming controls, special mounting brackets, permits, removal of old material, installation, or any additional electrical supplies related to install.