



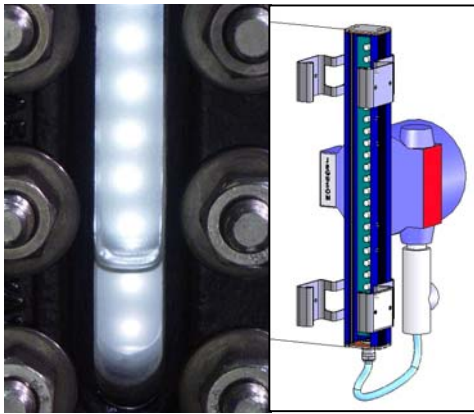
JERGENSON[®]

Inside The Product

I.T.P. Number: 2004-01

“Luminator II EPL-100 Payback Analysis”

April 23, 2004



JERGUSON® LED Gage Glass Lumenator II™ EPL-100

- Saves Over \$280,000 in 3 Years
- Reduces Hazardous Exposure to Personnel
- Increases Process, Plant, and Personnel Safety

Refinery “X” has 800 incandescent wedge style illuminators throughout their plant. (Jerguson model EPL-56 or equivalent.) The light source on these devices is a 58 Watt bulb. This bulb is rated at ~2000 hours but normally gets changed out about 2-3 times per year. The electricity rate at this refinery is currently at \$0.10 / kWh. This refinery plans to upgrade all of their illuminators to the New Jerguson EPL-100 over the next year. Once the project is complete, it will pay for itself in electricity and maintenance savings in less than two years. After year three, the refinery will save over \$280,000 in electricity and maintenance costs! And the savings for year four and beyond continues to accelerate.

The example above was based on the following:

Electricity Rate = \$0.10 / kWh
Bulb Cost = \$5.00 Each
*Direct & Indirect Labor = \$100.00 / bulb change
Number of Bulb Changes in 3 years = 8
EPL-100 Power Consumption = 5 Watts

* This labor estimate is very conservative. If you account for the actual time it takes to issue and close a work order, issue and close a purchase order, receive the goods and issue them out of inventory, and actually make the bulb change, this cost will well exceed \$250.00.

JERGUSON®Quality, Safety and Performance.



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Economic Impact Comparison: JERGUSON® LED Gage Glass Lumenator II™ EPL-100

Base Electricity Savings											
	Rate [\$/kWh]	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
	\$0.05	\$23.21	\$46.43	\$69.64	\$92.86	\$116.07	\$139.28	\$162.50	\$185.71	\$208.93	\$232.14
	\$0.06	\$27.86	\$55.71	\$83.57	\$111.43	\$139.28	\$167.14	\$195.00	\$222.85	\$250.71	\$278.57
	\$0.07	\$32.50	\$65.00	\$97.50	\$130.00	\$162.50	\$195.00	\$227.50	\$260.00	\$292.50	\$325.00
	\$0.08	\$37.14	\$74.28	\$111.43	\$148.57	\$185.71	\$222.85	\$260.00	\$297.14	\$334.28	\$371.42
	\$0.09	\$41.79	\$83.57	\$125.36	\$167.14	\$208.93	\$250.71	\$292.50	\$334.28	\$376.07	\$417.85
	\$0.10	\$46.43	\$92.86	\$139.28	\$185.71	\$232.14	\$278.57	\$325.00	\$371.42	\$417.85	\$464.28
	\$0.11	\$51.07	\$102.14	\$153.21	\$204.28	\$255.35	\$306.42	\$357.50	\$408.57	\$459.64	\$510.71
	\$0.12	\$55.71	\$111.43	\$167.14	\$222.85	\$278.57	\$334.28	\$390.00	\$445.71	\$501.42	\$557.14
	\$0.13	\$60.36	\$120.71	\$181.07	\$241.43	\$301.78	\$362.14	\$422.49	\$482.85	\$543.21	\$603.56
	\$0.14	\$65.00	\$130.00	\$195.00	\$260.00	\$325.00	\$390.00	\$454.99	\$519.99	\$584.99	\$649.99
	\$0.15	\$69.64	\$139.28	\$208.93	\$278.57	\$348.21	\$417.85	\$487.49	\$557.14	\$626.78	\$696.42
Maintenance											
Average Bulb Life on EPL-56 = 3,000 hours = 125 Days = .35 Years											
	Accumulated Bulb Changes	2	5	8	11	14	17	20	22	25	28
	Bulb Cost =	\$5.00									
	Labor Cost =	\$100.00									
	Total Cost =	\$105.00									
Total Savings, Electricity & Maintenance - Single Unit											
	Rate [\$/kWh]	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
	\$0.05	-\$392.79	-\$54.57	\$283.64	\$621.86	\$960.07	\$1,298.28	\$1,636.50	\$1,869.71	\$2,207.93	\$2,546.14
	\$0.06	-\$388.14	-\$45.29	\$297.57	\$640.43	\$983.28	\$1,326.14	\$1,669.00	\$1,906.85	\$2,249.71	\$2,592.57
	\$0.07	-\$383.50	-\$36.00	\$311.50	\$659.00	\$1,006.50	\$1,354.00	\$1,701.50	\$1,944.00	\$2,291.50	\$2,639.00
	\$0.08	-\$378.86	-\$26.72	\$325.43	\$677.57	\$1,029.71	\$1,381.85	\$1,734.00	\$1,981.14	\$2,333.28	\$2,685.42
	\$0.09	-\$374.21	-\$17.43	\$339.36	\$696.14	\$1,052.93	\$1,409.71	\$1,766.50	\$2,018.28	\$2,375.07	\$2,731.85
	\$0.10	-\$369.57	-\$8.14	\$353.28	\$714.71	\$1,076.14	\$1,437.57	\$1,799.00	\$2,055.42	\$2,416.85	\$2,778.28
	\$0.11	-\$364.93	\$1.14	\$367.21	\$733.28	\$1,099.35	\$1,465.42	\$1,831.50	\$2,092.57	\$2,458.64	\$2,824.71
	\$0.12	-\$360.29	\$10.43	\$381.14	\$751.85	\$1,122.57	\$1,493.28	\$1,864.00	\$2,129.71	\$2,500.42	\$2,871.14
	\$0.13	-\$355.64	\$19.71	\$395.07	\$770.43	\$1,145.78	\$1,521.14	\$1,896.49	\$2,166.85	\$2,542.21	\$2,917.56
	\$0.14	-\$351.00	\$29.00	\$409.00	\$789.00	\$1,169.00	\$1,549.00	\$1,928.99	\$2,203.99	\$2,583.99	\$2,963.99
	\$0.15	-\$346.36	\$38.28	\$422.93	\$807.57	\$1,192.21	\$1,576.85	\$1,961.49	\$2,241.14	\$2,625.78	\$3,010.42
Notes:											
1. Payback based on the cost of a 2 Section Size 9 EPL-100 = \$626											
2. Labor Costs Include Estimates of Direct Labor to Change Bulb and Indirect Labor to Initiate and Close Work Orders, Enter Purchase Orders, Inventory and Other Indirect Costs.											

Economic Impact Comparison: JERGUSON® LED Gage Glass Lumenator II™ EPL-100

Total Savings, Electricity & Maintenance - 50 Units

Rate [\$/kWh]	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
\$0.05	-\$19,639.30	-\$2,728.60	\$14,182.10	\$31,092.80	\$48,003.50	\$64,914.20	\$81,824.90	\$93,485.60	\$110,396.30	\$127,307.00
\$0.06	-\$19,407.16	-\$2,264.32	\$14,878.52	\$32,021.36	\$49,164.20	\$66,307.04	\$83,449.88	\$95,342.72	\$112,485.56	\$129,628.40
\$0.07	-\$19,175.02	-\$1,800.04	\$15,574.94	\$32,949.92	\$50,324.90	\$67,699.88	\$85,074.86	\$97,199.84	\$114,574.82	\$131,949.80
\$0.08	-\$18,942.88	-\$1,335.76	\$16,271.36	\$33,878.48	\$51,485.60	\$69,092.72	\$86,699.84	\$99,056.96	\$116,664.08	\$134,271.20
\$0.09	-\$18,710.74	-\$871.48	\$16,967.78	\$34,807.04	\$52,646.30	\$70,485.56	\$88,324.82	\$100,914.08	\$118,753.34	\$136,592.60
\$0.10	-\$18,478.60	-\$407.20	\$17,664.20	\$35,735.60	\$53,807.00	\$71,878.40	\$89,949.80	\$102,771.20	\$120,842.60	\$138,914.00
\$0.11	-\$18,246.46	\$57.08	\$18,360.62	\$36,664.16	\$54,967.70	\$73,271.24	\$91,574.78	\$104,628.32	\$122,931.86	\$141,235.40
\$0.12	-\$18,014.32	\$521.36	\$19,057.04	\$37,592.72	\$56,128.40	\$74,664.08	\$93,199.76	\$106,485.44	\$125,021.12	\$143,556.80
\$0.13	-\$17,782.18	\$985.64	\$19,753.46	\$38,521.28	\$57,289.10	\$76,056.92	\$94,824.74	\$108,342.56	\$127,110.38	\$145,878.20
\$0.14	-\$17,550.04	\$1,449.92	\$20,449.88	\$39,449.84	\$58,449.80	\$77,449.76	\$96,449.72	\$110,199.68	\$129,199.64	\$148,199.60
\$0.15	-\$17,317.90	\$1,914.20	\$21,146.30	\$40,378.40	\$59,610.50	\$78,842.60	\$98,074.70	\$112,056.80	\$131,288.90	\$150,521.00

Notes:

1. Payback based on the cost of a 2 Section Size 9 EPL-100 = \$626
2. Labor Costs Include Estimates of Direct Labor to Change Bulb and Indirect Labor to Initiate and Close Work Orders, Enter Purchase Orders, Inventory and

Total Savings, Electricity & Maintenance - 100 Units

Rate [\$/kWh]	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
\$0.05	-\$39,278.60	-\$5,457.20	\$28,364.20	\$62,185.60	\$96,007.00	\$129,828.40	\$163,649.80	\$186,971.20	\$220,792.60	\$254,614.00
\$0.06	-\$38,814.32	-\$4,528.64	\$29,757.04	\$64,042.72	\$98,328.40	\$132,614.08	\$166,899.76	\$190,685.44	\$224,971.12	\$259,256.80
\$0.07	-\$38,350.04	-\$3,600.08	\$31,149.88	\$65,899.84	\$100,649.80	\$135,399.76	\$170,149.72	\$194,399.68	\$229,149.64	\$263,899.60
\$0.08	-\$37,885.76	-\$2,671.52	\$32,542.72	\$67,756.96	\$102,971.20	\$138,185.44	\$173,399.68	\$198,113.92	\$233,328.16	\$268,542.40
\$0.09	-\$37,421.48	-\$1,742.96	\$33,935.56	\$69,614.08	\$105,292.60	\$140,971.12	\$176,649.64	\$201,828.16	\$237,506.68	\$273,185.20
\$0.10	-\$36,957.20	-\$814.40	\$35,328.40	\$71,471.20	\$107,614.00	\$143,756.80	\$179,899.60	\$205,542.40	\$241,685.20	\$277,828.00
\$0.11	-\$36,492.92	\$114.16	\$36,721.24	\$73,328.32	\$109,935.40	\$146,542.48	\$183,149.56	\$209,256.64	\$245,863.72	\$282,470.80
\$0.12	-\$36,028.64	\$1,042.72	\$38,114.08	\$75,185.44	\$112,256.80	\$149,328.16	\$186,399.52	\$212,970.88	\$250,042.24	\$287,113.60
\$0.13	-\$35,564.36	\$1,971.28	\$39,506.92	\$77,042.56	\$114,578.20	\$152,113.84	\$189,649.48	\$216,685.12	\$254,220.76	\$291,756.40
\$0.14	-\$35,100.08	\$2,899.84	\$40,899.76	\$78,899.68	\$116,899.60	\$154,899.52	\$192,899.44	\$220,399.36	\$258,399.28	\$296,399.20
\$0.15	-\$34,635.80	\$3,828.40	\$42,292.60	\$80,756.80	\$119,221.00	\$157,685.20	\$196,149.40	\$224,113.60	\$262,577.80	\$301,042.00

Notes:

1. Payback based on the cost of a 2 Section Size 9 EPL-100 = \$626
2. Labor Costs Include Estimates of Direct Labor to Change Bulb and Indirect Labor to Initiate and Close Work Orders, Enter Purchase Orders, Inventory and