

ECONOMIC STUDY LAMP UPGRADE



LAMP COMPARISON

BRAND _____
AVG. LIFE _____ HOURS
LAMP DESC. _____
LAMP PRICE _____

MAINTENANCE ENGINEERING
M.E. LIFE _____ USER HOURS
LAMP DESC. _____
LAMP PRICE _____

ENERGY COST

_____ WATTS
x _____ M.E. LIFE HOURS
= _____ WATT HOURS
÷ 1,000 = _____ KWH
x _____ ¢/KWH
= \$ _____ ENERGY COST

_____ WATTS
x _____ M.E. LIFE HOURS
= _____ WATT HOURS
÷ 1,000 = _____ KWH
x _____ ¢/KWH
= \$ _____ M.E. ENERGY COST

M.E. SAVES
\$ _____

A/C COST

_____ WATTS
x _____ M.E. LIFE HOURS
= _____ WATT HOURS
÷ 1,000 = _____ KWH
X A/C _____ * See Backside
= _____ KWH
x _____ ¢/KWH
= \$ _____ A/C COST

_____ WATTS
x _____ M.E. LIFE HOURS
= _____ WATT HOURS
÷ 1,000 = _____ KWH
X A/C _____ * See Backside
= _____ KWH
x _____ ¢/KWH
= \$ _____ M.E. A/C COST

M.E. SAVES
\$ _____

LABOR COST

_____ M.E. LIFE HOURS
÷ _____ BULB LIFE HOURS
= _____ # OF LAMPS
x \$ _____ COST / CHANGE
= \$ _____ LABOR COST

_____ M.E. LIFE HOURS
÷ _____ BULB LIFE HOURS
= _____ # OF LAMPS
x \$ _____ COST / CHANGE
= \$ _____ M.E. LABOR COST

M.E. SAVES
\$ _____

LAMP COST

_____ M.E. LIFE HOURS
÷ _____ BULB LIFE HOURS
= _____ # OF LAMPS
x \$ _____ PRICE
= \$ _____ LAMP COST

_____ M.E. LIFE HOURS
÷ _____ BULB LIFE HOURS
= _____ # OF LAMPS
x \$ _____ PRICE
= \$ _____ M.E. LAMP COST

M.E. SAVES
\$ _____

TOTAL COSTS

BRAND _____ COST _____ MAINTENANCE ENGINEERING COST _____
\$ _____ (LESS) \$ _____ =

PER LAMP SAVINGS
\$ _____

OTHER FEATURES

GUARANTEE
 NO YES _____ MONTHS YES _____ MONTHS

LIGHT QUALITY
 EXCELLENT GOOD FAIR POOR EXCELLENT GOOD FAIR POOR

X _____ # LAMPS IN BUILDING

\$ _____

TOTAL SAVINGS

Salesperson _____ Date _____

ECONOMIC STUDY SHORT HAND* METHOD

PRODUCT COMPARISONS Prepared For _____

BRAND _____
AVG. LIFE _____ **HOURS**
LAMP DESC. _____
LAMP PRICE _____

MAINTENANCE ENGINEERING
M.E. LIFE _____ **USER HOURS**
LAMP DESC. _____
LAMP PRICE _____

ENERGY SAVINGS PER LAMP

$$\frac{\text{WATTS SAVED PER LAMP}}{\text{LIFE OF M.E. LAMP}} \times \frac{1,000}{\text{CONVERT TO KWH}} = \frac{\text{KWH SAVED}}{\text{COST PER KWH}} = \text{ENERGY SAVINGS}$$

\$ _____
ENERGY SAVINGS

AIR CONDITIONING SAVINGS PER LAMP

$$\frac{\text{WATTS SAVED PER LAMP}}{\text{LIFE OF M.E. LAMP}} \times \frac{1,000}{\text{CONVERT TO KWH}} = \frac{\text{KWH SAVED}}{\text{A/C FACTOR* (See Below)}} \times \frac{\text{COST PER KWH}}{\text{COST PER KWH}} = \text{A/C SAVINGS}$$

\$ _____
A/C SAVINGS

LABOR SAVINGS PER LAMP

$$\frac{\text{M.E. LAMP LIFE}}{\text{LIFE OF SHORT LIFE LAMP}} = \frac{\text{EQUIVALENT \# OF LAMPS}}{\text{\# OF M.E. LAMPS}} - 1 = \frac{\text{\# CHANGES SAVED}}{\text{COST TO CHANGE}} = \text{LABOR SAVINGS}$$

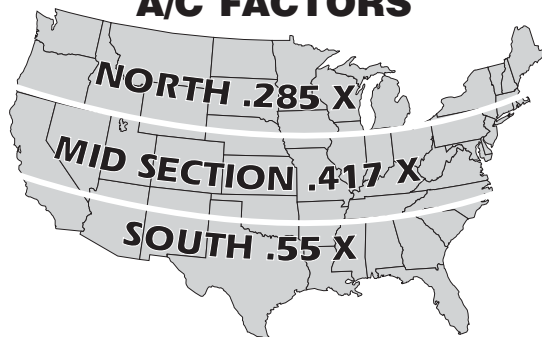
\$ _____
LABOR SAVINGS

LAMP COST SAVINGS

$$\frac{\text{M.E. LAMP LIFE}}{\text{LIFE OF SHORT LIFE LAMP}} = \frac{\text{EQUIVALENT \# OF LAMPS}}{\text{COST OF SHORT LIFE LAMP}} \times \frac{\text{COST OF SHORT LIFE LAMP}}{\text{COST OF M.E. LAMP}} = \text{LAMP SAVINGS}$$

\$ _____
LAMP SAVINGS

A/C FACTORS



PER LAMP SAVINGS \$ _____

\# LAMPS IN BUILDING X _____

TOTAL SAVINGS \$ _____

* **AIR CONDITIONING SAVINGS** – For each watt saved in lighting, an additional .55 watts are saved in direct A/C costs due to reduced heat loads. This A/C factor is unique to each part of the country and takes into account total cooling degree days compared to heating degree days.

ENERGY COSTS – National Electrical rates average 10 cents/kwh. In determining local rates be sure to include fuel surcharges, peak demand charges and any other additional charges that the power company may add. The actual gross rate is frequently considerably higher than just the kwh rate shown.

LABOR COSTS – National average for 1 lamp change is one dollar. Actual costs can exceed this when purchasing agent's time, storage, equipment rental, down time, insurance and liability costs are included.

LAMP LIFE RATIOS - Incandescent life ratios are based on life ratings at manufacturer's test voltage. Fluorescent and H.I.D. life ratios are based on minimum life guarantees of each product.

ME
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Salesperson _____ **Date** _____