Location:       Project Number:

System Configuration:       Pole Spacing:       Mounting Height:

Light Source Type:       IES Light Distribution Type:

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Service Cost per Year for New Installations or Complete Modernization

= Annual Energy Cost + Annual Maintenance Cost + (Installation Cost/Warranty or Service Period)

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Annual Energy Cost

= [(No. of Luminaires x Wattage per Luminaire x Operational Hours)÷1000] x Unit Cost of Electricity

No. of Luminaires =       (1)

Luminaire Wattage =       (2)

No. of High Mast Luminaires =       (3)

High Mast Luminaire Wattage =       (4)

Operational Hours = 4380

Unit Cost of Electricity =       (5) ($0.10 per kWh or location specific rate)

Annual Energy Cost =

[{(      x      ) + (      x       )} x 4380 ÷ 1000] x       =

(1) (2) (3) (4) (5) (A)

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Annual Maintenance Cost

= No. of Luminaires x Maintenance Cost per Luminaire

No. of Luminaires =       (1)

Maintenance Cost per Luminaire,

for HPS = $60 (6)

for other light source types =       (7) (per manufacturer’s info)

No. of High Mast Luminaires =       (3)

Maintenance Cost per High Mast Luminaire,

for 1000W = $105 (8)

for other light source types =       (9) (per manufacturer’s info)

Annual Maintenance Cost = {(      x      ) + (      x      )} =

(1) (6) or (7) (3) (8) or (9) (B)

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Installation Costs

= [Cost of Luminaires ÷ Warranty Period] +

[Cost of Poles/Foundations ÷ Pole Service Life] +

+ [Cost of Towers/Foundations ÷ Tower Service Life]

No. of Roadway Luminaires =       (1)

Furnish/Install Cost per Roadway Luminaire =       (10) (per mfr. for non-HPS)

= years (11)

No. of Poles Foundations =       (12)

Furnish/Install Cost of Pole =       (13)

Furnish/Install Cost of Pole Foundation =       (14)

Pole Service Life = 20 years

No. of High Mast Luminaires =       (3)

Furnish/Install Cost per High Mast Luminaire =       (15) (per mfr. for non-HPS)

= years (16)

No. of High Mast Towers Foundations =       (17)

Furnish/Install Cost of Tower =       (18)

Furnish/Install Cost of Tower Foundation =       (19)

Tower Service Life = 40 years

Installation Cost =

[(      x      ) ÷      ] =       (20)

(1) (10) (11)

+ [(      x (      +      )) ÷ 20] =       (21)

(12) (13) (14)

+ [(      x      ) ÷      ] =       (22)

(3) (15) (16)

+ [(      x (      +      )) ÷ 40] =       (23)

(17) (18) (19)

/=       +       +       +      =

(20) (21) (22) (23) (C)

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Service Cost per Year =       +       +       =

(A) (B) (C)