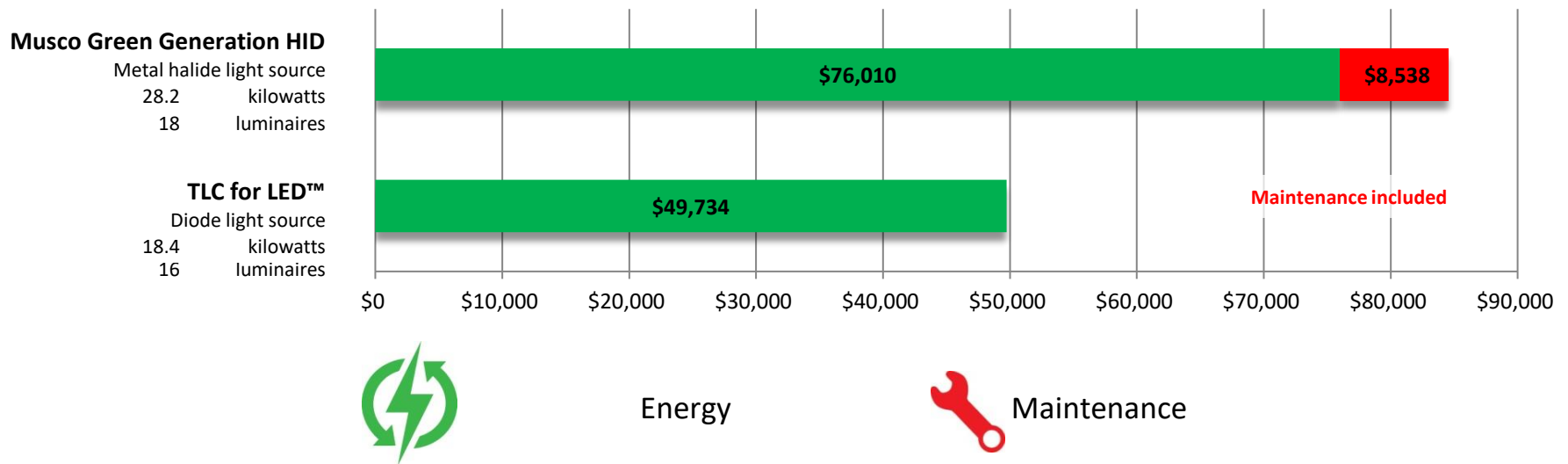


## 25-Year Cost of Ownership Comparison

**Reidy Field**  
Prepared For:  
**Jay McHale**  
August 31, 2021



**How is this possible?** Musco's 40 years of developing systems, light control, and application expertise puts more available lumens per watt on the field. Our services team provides all on/off operation, monitoring, and maintenance.

### For your budget . . . for the environment

Musco LED



25-Year Ownership Savings

**\$34,814**



CO2 reduction

**34 tons\*\***

\*\* Equivalent to taking 7 cars off the road for one year

#### Assumptions Reidy Field

Annual operating hours	200
<b>Energy:</b>	
Energy cost per kilowatt hour	\$0.10
Demand charge per kilowatt hour	\$11.00
<b>Maintenance:</b>	
Group relamp - cost per luminaire	\$266
Spot maintenance over 25 years	\$3,750
<b>Controls:</b>	
Labor - turning lights on & off	\$0.00
Lights on extra time without controls	15%



	TLC for LED	Musco Green HID
kW totals	18.42	28.15
Energy totals	\$49,734	\$76,010
Maintenance	0.00 \$	8,538
Controls	0.00 \$	-
Totals	49734 \$	84,548
Qty of luminaires	16	18
CO2	64	97

	Field 1	Field 2	Field 3	Field 4	Field 5
kW Totals:	18.42	0	0	0	0
TLC luminaire totals:	16	0	0	0	0

**Field 6**

0

0

**Field 7**

0

0

**Field 8**

0

0

## Input fields in yellow

Facility name	Reidy Field
Scoreboard project #	198552
Field description & footcandle levels	Reidy Field
Prepared for	Jay McHale
Energy cost per kWh	\$0.10
Annual operating hours	200

<b>Does the facility have demand charges?</b>	No
Demand charges	11
Months of demand	8

### Musco TLC for LED data

TLC	TLC for LED™ 1500	
Poletop luminaire quantity	8	
TLC	TLC for LED™ 1200	
Poletop luminaire quantity	4	
TLC	TLC for LED™ 900	
Poletop luminaire quantity	0	
TLC	TLC for LED™ 600	
Poletop luminaire quantity	0	
TLC	TLC for LED™ RGBW	
Poletop luminaire quantity	0	
BallTracker™ luminaire quantity	4	
kW demand per luminaire		1.43
kW demand per luminaire		1.17
kW demand per luminaire		0.89
kW demand per luminaire		0.58
kW demand per luminaire		0.64
kW demand per BallTracker™ luminaire		0.575
Total system kW	18.42	

### Musco Green Metal Halide

Lamp wattage	1500W Z Lamp
Luminaire quantity	18
kW demand per luminaire	1.564
Useful lamp life hours	5000
Total system kW	28.152

### Controls

Energy savings	15%
Labor rate per hour	\$0.00
# on/off cycles per year	0
Labor hours per cycle	0

### Maintenance

Lamp replacement cost	\$266
Warranty duration (in years)	25
Spot maintenance over warranty duration	\$3,750

### 25-year cost calculations

	Musco TLC for LED	Typical or Prior
Energy	\$9,210	\$14,076
Demand charges	\$40,524	\$61,934
Energy total	\$49,734	\$76,010
Maintenance (relamping & spot)		\$8,538
Controls		
Total	\$49,734	\$84,548
25-Year CO2	64	97

## Input fields in yellow

Facility name

Scoreboard project #

Field description & footcandle levels

Prepared for

Energy cost per kWh \$0.10

Annual operating hours

**Does the facility have demand charges?** No

Demand charges 0

Months of demand 0

### Musco TLC for LED data

TLC TLC for LED™ 1500

Poletop luminaire quantity 0

TLC TLC for LED™ 1200

Poletop luminaire quantity 0

TLC TLC for LED™ 900

Poletop luminaire quantity 0

TLC TLC for LED™ 600

Poletop luminaire quantity 0

TLC TLC for LED™ RGBW

Poletop luminaire quantity 0

BallTracker™ luminaire quantity 0

kW demand per luminaire 1.43

kW demand per luminaire 1.17

kW demand per luminaire 0.89

kW demand per luminaire 0.58

kW demand per luminaire 0.64

kW demand per BallTracker™ luminaire 0.575

Total system kW 0

### Musco Green Metal Halide

Lamp wattage 1500W Z Lamp

Luminaire quantity 0

kW demand per luminaire 1.564

Useful lamp life hours 5000

Total system kW 0

### Controls

Energy savings 15%

Labor rate per hour \$0.00

# on/off cycles per year 0

Labor hours per cycle 0

### Maintenance

Lamp replacement cost \$266

Warranty duration (in years) 25

Spot maintenance over warranty duration \$3,750

### 25-year cost calculations

	Musco TLC for LED	Typical or Prior
Energy	\$0	\$0
Demand charges	\$0	\$0
Energy total	\$0	\$0
Maintenance (relamping & spot)		\$0
Controls		\$0
Total	\$0	\$0
25-Year CO2	0	0

## Input fields in yellow

Facility name

Scoreboard project #

Field description & footcandle levels

Prepared for

Energy cost per kWh \$0.10

Annual operating hours

**Does the facility have demand charges?** No

Demand charges 0

Months of demand 0

### Musco TLC for LED data

TLC TLC for LED™ 1500

Poletop luminaire quantity 0

TLC TLC for LED™ 1200

Poletop luminaire quantity 0

TLC TLC for LED™ 900

Poletop luminaire quantity 0

TLC TLC for LED™ 600

Poletop luminaire quantity 0

TLC TLC for LED™ RGBW

Poletop luminaire quantity 0

BallTracker™ luminaire quantity 0

kW demand per luminaire 1.43

kW demand per luminaire 1.17

kW demand per luminaire 0.89

kW demand per luminaire 0.58

kW demand per luminaire 0.64

kW demand per BallTracker™ luminaire 0.575

Total system kW 0

### Musco Green Metal Halide

Lamp wattage 1500W Z Lamp

Luminaire quantity 0

kW demand per luminaire 1.564

Useful lamp life hours 5000

Total system kW 0

### Controls

Energy savings 15%

Labor rate per hour \$0.00

# on/off cycles per year 0

Labor hours per cycle 0

### Maintenance

Lamp replacement cost \$266

Warranty duration (in years) 25

Spot maintenance over warranty duration \$3,750

25-year cost calculations		
	Musco TLC for LED	Typical or Prior
Energy	\$0	\$0
Demand charges	\$0	\$0
Energy total	\$0	\$0
Maintenance (relamping & spot)		\$0
Controls		\$0
Total	\$0	\$0
25-Year CO2	0	0

## Input fields in yellow

Facility name

Scoreboard project #

Field description & footcandle levels

Prepared for

Energy cost per kWh \$0.10

Annual operating hours

**Does the facility have demand charges?** No

Demand charges 0

Months of demand 0

### Musco TLC for LED data

TLC TLC for LED™ 1500

Poletop luminaire quantity 0

TLC TLC for LED™ 1200

Poletop luminaire quantity 0

TLC TLC for LED™ 900

Poletop luminaire quantity 0

TLC TLC for LED™ 600

Poletop luminaire quantity 0

TLC TLC for LED™ RGBW

Poletop luminaire quantity 0

BallTracker™ luminaire quantity 0

kW demand per luminaire 1.43

kW demand per luminaire 1.17

kW demand per luminaire 0.89

kW demand per luminaire 0.58

kW demand per luminaire 0.64

kW demand per BallTracker™ luminaire 0.575

Total system kW 0

### Musco Green Metal Halide

Lamp wattage 1500W Z Lamp

Luminaire quantity 0

kW demand per luminaire 1.564

Useful lamp life hours 5000

Total system kW 0

### Controls

Energy savings 15%

Labor rate per hour \$0.00

# on/off cycles per year 0

Labor hours per cycle 0

### Maintenance

Lamp replacement cost \$266

Warranty duration (in years) 25

Spot maintenance over warranty duration \$3,750

25-year cost calculations		
	Musco TLC for LED	Typical or Prior
Energy	\$0	\$0
Demand charges	\$0	\$0
Energy total	\$0	\$0
Maintenance (relamping & spot)		\$0
Controls		\$0
Total	\$0	\$0
25-Year CO2	0	0

**Input fields in yellow**

Facility name

Scoreboard project #

Field description & footcandle levels

Prepared for

Energy cost per kWh \$0.10

Annual operating hours

**Does the facility have demand charges?** No

Demand charges 0

Months of demand 0

**Musco TLC for LED data**

TLC TLC for LED™ 1500

Poletop luminaire quantity 0

TLC TLC for LED™ 1200

Poletop luminaire quantity 0

TLC TLC for LED™ 900

Poletop luminaire quantity 0

TLC TLC for LED™ 600

Poletop luminaire quantity 0

TLC TLC for LED™ RGBW

Poletop luminaire quantity 0

BallTracker™ luminaire quantity 0

kW demand per luminaire 1.43

kW demand per luminaire 1.17

kW demand per luminaire 0.89

kW demand per luminaire 0.58

kW demand per luminaire 0.64

kW demand per BallTracker™ luminaire 0.575

Total system kW 0

**Musco Green Metal Halide**

Lamp wattage 1500W Z Lamp

Luminaire quantity 0

kW demand per luminaire 1.564

Useful lamp life hours 5000

Total system kW 0

**Controls**

Energy savings 15%

Labor rate per hour \$0.00

# on/off cycles per year 0

Labor hours per cycle 0

**Maintenance**

Lamp replacement cost \$266

Warranty duration (in years) 25

Spot maintenance over warranty duration \$3,750

25-year cost calculations		
	Musco TLC for LED	Typical or Prior
Energy	\$0	\$0
Demand charges	\$0	\$0
Energy total	\$0	\$0
Maintenance (relamping & spot)		\$0
Controls		\$0
Total	\$0	\$0
25-Year CO2	0	0



## Input fields in yellow

Facility name

Scoreboard project #

Field description & footcandle levels

Prepared for

Energy cost per kWh \$0.10

Annual operating hours

**Does the facility have demand charges?** No

Demand charges 0

Months of demand 0

### Musco TLC for LED data

TLC TLC for LED™ 1500

Poletop luminaire quantity 0

TLC TLC for LED™ 1200

Poletop luminaire quantity 0

TLC TLC for LED™ 900

Poletop luminaire quantity 0

TLC TLC for LED™ 600

Poletop luminaire quantity 0

TLC TLC for LED™ RGBW

Poletop luminaire quantity 0

BallTracker™ luminaire quantity 0

kW demand per luminaire 1.43

kW demand per luminaire 1.17

kW demand per luminaire 0.89

kW demand per luminaire 0.58

kW demand per luminaire 0.64

kW demand per BallTracker™ luminaire 0.575

Total system kW 0

### Musco Green Metal Halide

Lamp wattage 1500W Z Lamp

Luminaire quantity 0

kW demand per luminaire 1.564

Useful lamp life hours 5000

Total system kW 0

### Controls

Energy savings 15%

Labor rate per hour \$0.00

# on/off cycles per year 0

Labor hours per cycle 0

### Maintenance

Lamp replacement cost \$266

Warranty duration (in years) 25

Spot maintenance over warranty duration \$3,750

25-year cost calculations		
	Musco TLC for LED	Typical or Prior
Energy	\$0	\$0
Demand charges	\$0	\$0
Energy total	\$0	\$0
Maintenance (relamping & spot)		\$0
Controls		\$0
Total	\$0	\$0
25-Year CO2	0	0

**Input fields in yellow**

Facility name

Scoreboard project #

Field description & footcandle levels

Prepared for

Energy cost per kWh \$0.10

Annual operating hours

**Does the facility have demand charges?** No

Demand charges 0

Months of demand 0

**Musco TLC for LED data**

TLC TLC for LED™ 1500

Poletop luminaire quantity 0

TLC TLC for LED™ 1200

Poletop luminaire quantity 0

TLC TLC for LED™ 900

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TLC TLC for LED™ RGBW

Poletop luminaire quantity 0

BallTracker™ luminaire quantity 0

kW demand per luminaire 1.43

kW demand per luminaire 1.17

kW demand per luminaire 0.89

kW demand per luminaire 0.58

kW demand per luminaire 0.64

kW demand per BallTracker™ luminaire 0.575

Total system kW 0

**Musco Green Metal Halide**

Lamp wattage 1500W Z Lamp

Luminaire quantity 0

kW demand per luminaire 1.564

Useful lamp life hours 5000

Total system kW 0

**Controls**

Energy savings 15%

Labor rate per hour \$0.00

# on/off cycles per year 0

Labor hours per cycle 0

**Maintenance**

Lamp replacement cost \$266

Warranty duration (in years) 25

Spot maintenance over warranty duration \$3,750

25-year cost calculations		
	Musco TLC for LED	Typical or Prior
Energy	\$0	\$0
Demand charges	\$0	\$0
Energy total	\$0	\$0
Maintenance (relamping & spot)		\$0
Controls		\$0
Total	\$0	\$0
25-Year CO2	0	0

## Input fields in yellow

Facility name

Scoreboard project #

Field description & footcandle levels

Prepared for

Energy cost per kWh \$0.10

Annual operating hours

**Does the facility have demand charges?** No

Demand charges 0

Months of demand 0

### Musco TLC for LED data

TLC TLC for LED™ 1500

Poletop luminaire quantity 0

TLC TLC for LED™ 1200

Poletop luminaire quantity 0

TLC TLC for LED™ 900

Poletop luminaire quantity 0

TLC TLC for LED™ 600

Poletop luminaire quantity 0

TLC TLC for LED™ RGBW

Poletop luminaire quantity 0

BallTracker™ luminaire quantity 0

kW demand per luminaire 1.43

kW demand per luminaire 1.17

kW demand per luminaire 0.89

kW demand per luminaire 0.58

kW demand per luminaire 0.64

kW demand per BallTracker™ luminaire 0.575

Total system kW 0

### Musco Green Metal Halide

Lamp wattage 1500W Z Lamp

Luminaire quantity 0

kW demand per luminaire 1.564

Useful lamp life hours 5000

Total system kW 0

### Controls

Energy savings 15%

Labor rate per hour \$0.00

# on/off cycles per year 0

Labor hours per cycle 0

### Maintenance

Lamp replacement cost \$266

Warranty duration (in years) 25

Spot maintenance over warranty duration \$3,750

25-year cost calculations		
	Musco TLC for LED	Typical or Prior
Energy	\$0	\$0
Demand charges	\$0	\$0
Energy total	\$0	\$0
Maintenance (relamping & spot)		\$0
Controls		\$0
Total	\$0	\$0
25-Year CO2	0	0

<b>Luminaire Technology Information</b>		
	kW Demand	Useful lamp hours
Musco Green Generation 1500-watt	1.564	5000
Musco Green Generation 1000-watt	1.12	12000
Metal halide 1500-watt	1.62	3000
Metal halide 1000-watt	1.08	10000
Quartz 1500-watt	1.5	2000
Quartz 1000-watt	1	2000
MPI 1000-watt	1	2000
HPS 1000-watt	1.07	24000