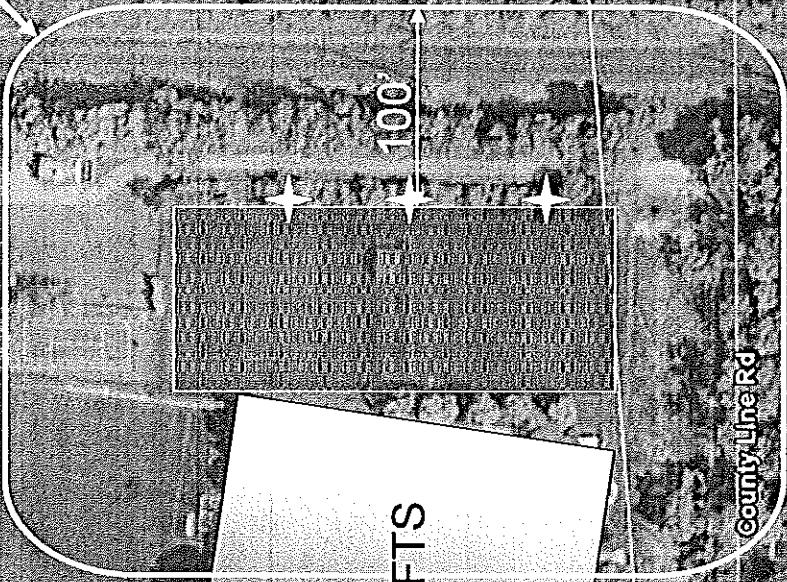


**TOPOGRAPHIC MAP OF
ADJOINING PROPERTIES**
Source: Upper Merion GIS data file

0 foot-candies at 100' from P/L-Fixture
Assumes no grade change or buffer.
Source: MUSCO Illumination Summary #136657 (1/26/09)



10 footcandles at 100 feet
From light fixture



YSC SOCCER ACADEMY
FTS and Practice fields Only

© 2009 Tele Atlas,
US Census Bureau

Google

Jun 6, 2004

Elevation 1405 ft

County Line Rd

349 ft

20° 04' 33.95\"/>

0 foot candles at 100 feet
From light fixture

2.



County Line Rd

★ Light Fixture

YSC SOCCER ACADEMY

New Outdoor Fields Only
Google

© 2009 Tele Atlas
US Census Bureau

40°04'33.85" N 75°24'09.72" W

349 m

elev. 213 ft

Jun 6, 2009

Eye alt. 1405 ft



MUSCO
GREEN GENERATION LIGHTING™

EQUIPMENT LAYOUT

Rocket Sports

Wayne, PA

INCLUDES:

- Soccer

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

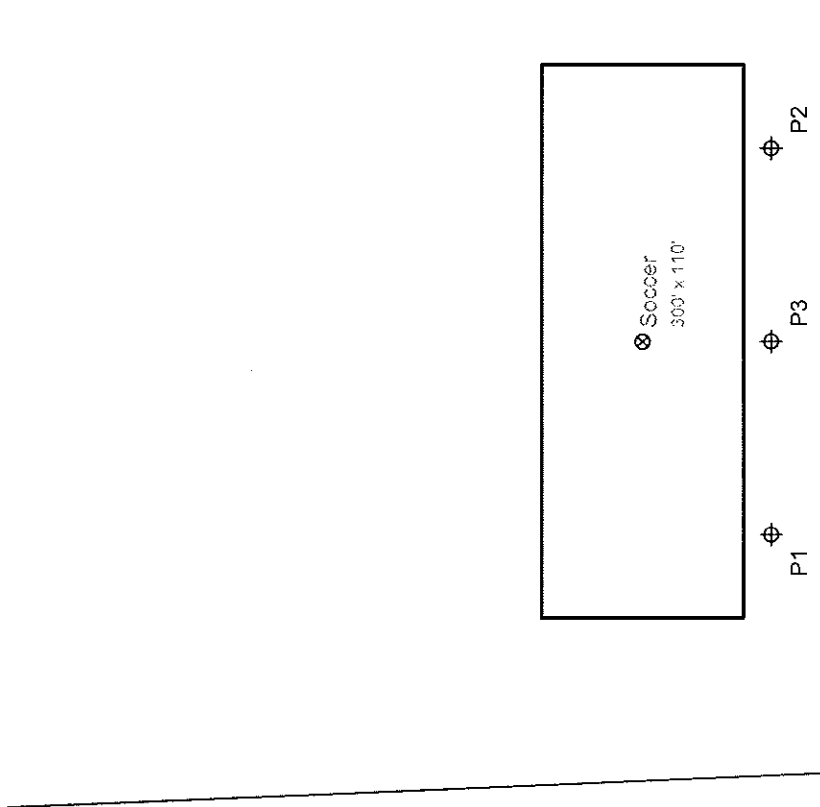
Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

EQUIPMENT LIST FOR AREAS SHOWN

Pole		Luminaires			
QTY	LOCATION	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE
3	P1-P3	-	50'	1500W MZ	3
← TOTALS →					9

SINGLE LUMINAIRE AMPERAGE DRAW CHART

Ballast Specifications	Line Amperage Per Luminaire (max draw)					
	120 (60)	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)
Single Phase Voltage	120	208	220	240	277	347
1500 watt MZ	8.6	8.6	7.7	7.5	6.5	5.1
					4.7	3.7



By: Joel DeBoef

File #: 136657-R

Date: 26-Jan-09

Pole location(s) ⓧ dimensions are relative to 0,0 reference point(s) ⓧ

SCALE IN FEET 1 : 100





MUSCO
GREEN GENERATION LIGHTING™

ILLUMINATION SUMMARY

Soccer Spill

Rocket Sports
Wayne, PA

Soccer Spill

- Grid Spacing = 30.0'
- Values given at 3.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

**CONSTANT ILLUMINATION
MAX VERTICAL FOOTCANDLES**

Entire Grid
No. of Target Points: 49
Average: 0.705
Maximum: 2.63
Minimum: 0.01
Average Lamp Tilt Factor: 1.000
Number of Luminaires: 9
Avg KW over 5000 hours: 14.08
Max KW: 15.3

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

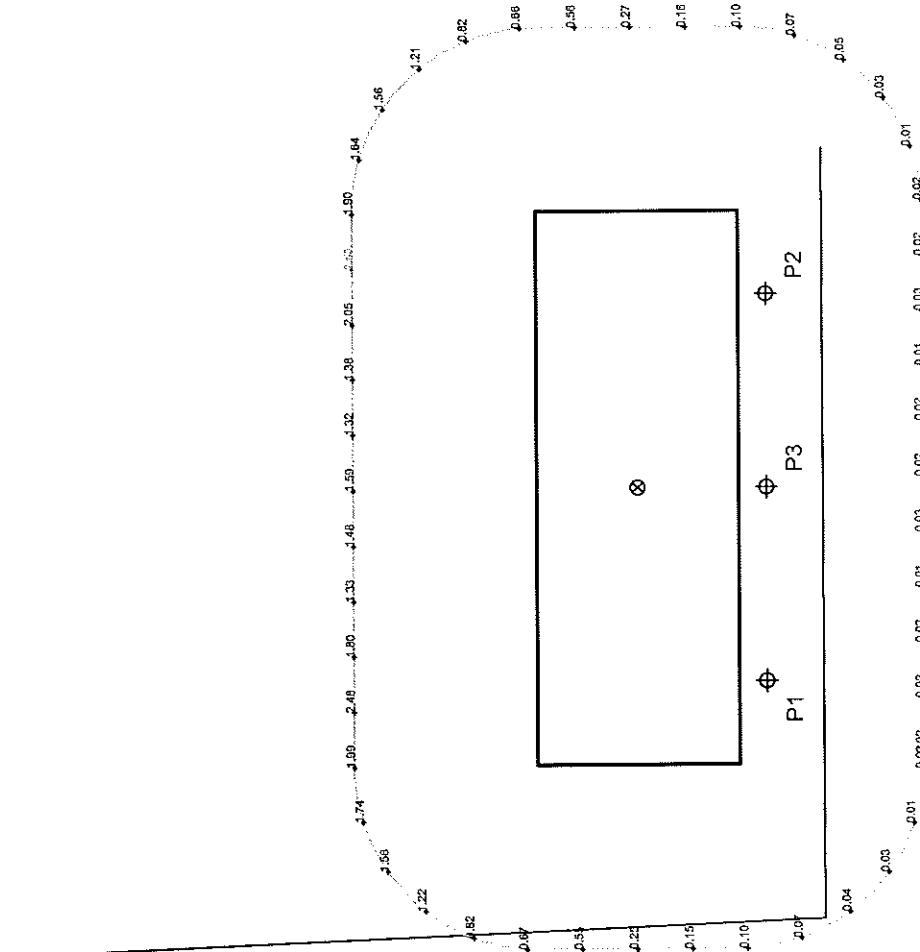
Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Joel DeBoef
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Date: 26-Jan-09

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EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	Luminaires			
					LAMP TYPE	THIS GRID	OTHER GRID	OTHER GRID
3	P1-P3	50'	-	50'	1500W MZ	3	3	0
3	TOTALS							



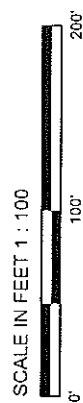
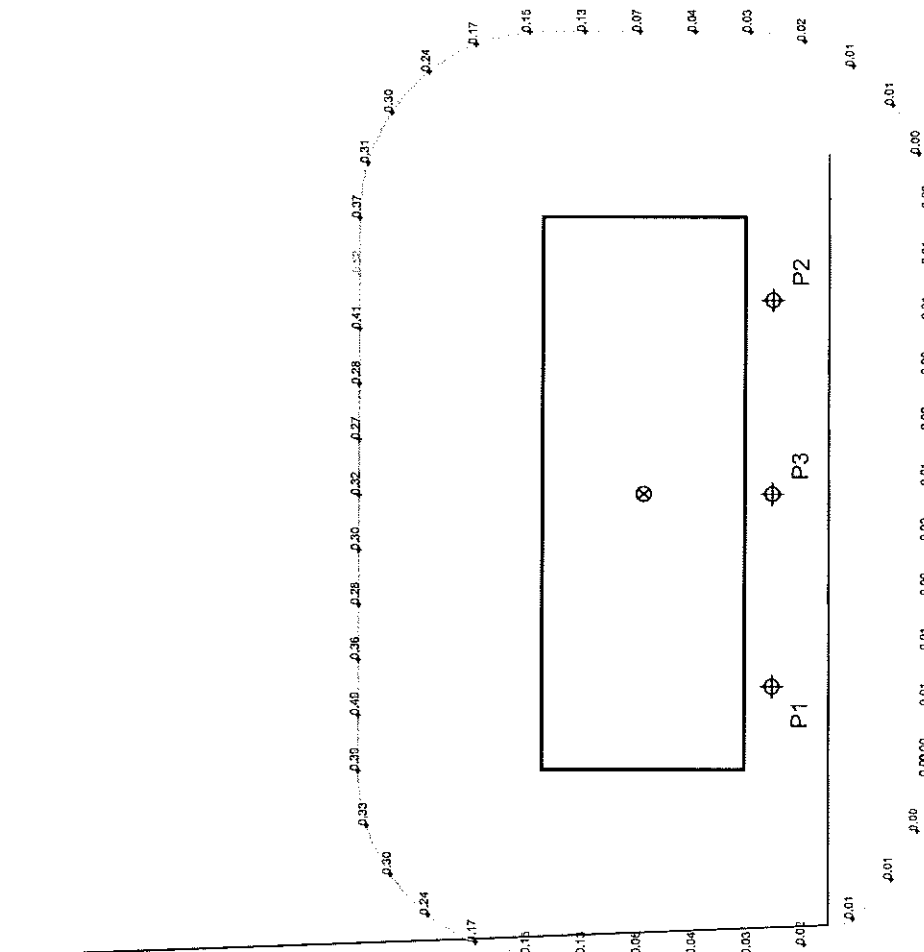
SCALE IN FEET 1 : 100



Pole location(s) Ⓢ dimensions are relative to 0,0 reference point(s) ⊗

EQUIPMENT LIST FOR AREAS SHOWN

Pole		Luminaires						
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
3	P1-P3	50'	-	50'	1500W MZ	3	3	0
← TOTALS		→				9	9	0



SCALE IN FEET 1 : 100



Pole location(s) with dimensions are relative to 0.0 reference point(s)

By: Joel DeBoef
File #: 136657-R

Date: 26-Jan-09

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MUSCO
GREEN GENERATION LIGHTING™

GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Soccer Spill

Rocket Sports
Wayne, PA

Soccer Spill

- Grid Spacing = 30.0'
- Values given at 3.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

HORIZONTAL ILLUMINATION

Entire Grid

- No. of Target Points: 49
- Average: 0.144
- Maximum: 0.52
- Minimum: 0.00

- Average Lamp Tilt Factor: 1.000
- Number of Luminaires: 9
- Avg KW over 5000 hours: 14.08
- Max KW: 15.3

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

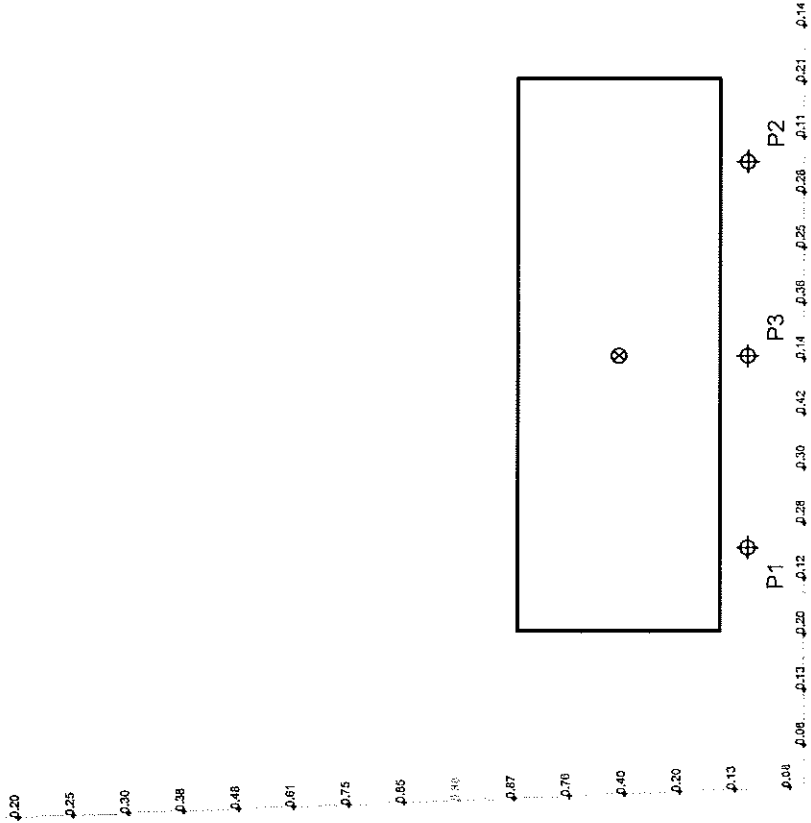


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GUARANTEED PERFORMANCE

EQUIPMENT LIST FOR AREAS SHOWN

Pole		Luminaires			
QTY	LOCATION	SIZE	MOUNTING HEIGHT	LAMP TYPE	OTHER GRIDS
3	P1-P3	50'	50'	1500W MZ	0
3	TOTALS				0



ILLUMINATION SUMMARY

Property Spill

Rocket Sports
Wayne, PA

Property Spill

- Grid Spacing = 30.0'
- Values given at 3.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION

MAX VERTICAL FOOTCANDLES

Entire Grid
No. of Target Points: 29
Average: 0.350
Maximum: 0.88
Minimum: 0.08

Average Lamp Tilt Factor: 1.000
Number of Luminaires: 9
Avg KW over 5000 hours: 14.08
Max KW: 15.3

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Joel DeBoef

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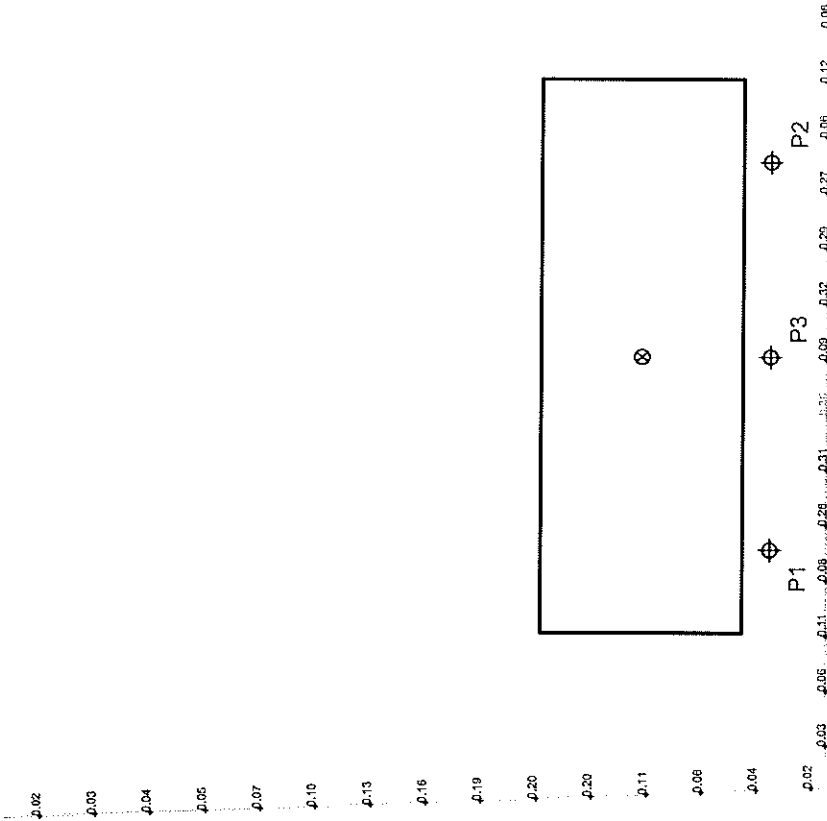
Pole location(s) ± dimensions are relative to 0,0 reference point(s) ⊗

SCALE IN FEET 1 : 100



EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	Pole	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	Luminaires				
						LAMP TYPE	1500W MZ	QTY / POLE	THIS GRID	OTHER GRIDS
3	P1-P3		50'		50'	1500W MZ	3	3	0	
3	TOTALS							9	9	0



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Property Spill

Rocket Sports
Wayne, PA

Property Spill

- Grid Spacing = 30.0'
- Values given at 3.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

HORIZONTAL ILLUMINATION

- Entire Grid
- No. of Target Points: 29
- Average: 0.132
- Maximum: 0.38
- Minimum: 0.02

- Average Lamp Tilt Factor: 1.000
- Number of Luminaires: 9
- Avg KW over 5000 hours: 14.08
- Max KW: 15.3

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/- 10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Joel DeBoef

File #: 136657-R

Date: 26-Jan-09

Pole location(s) dimensions are relative to 0.0 reference point(s)

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SCALE IN FEET 1 : 100



EQUIPMENT LIST FOR AREAS SHOWN

Pole		Luminaires						
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
3	P1-P3	50'	-	50'	1500W MZ	3	3	0
TOTALS						9	9	0



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Soccer
Rocket Sports
Wayne, PA

Soccer

- Size: 300' x 110'
- Grid Spacing = 20.0' x 20.0'
- Values given at 3.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

HORIZONTAL ILLUMINATION

No. of Target Points:	90
Entire Grid	
Average:	22.9
Maximum:	40
Minimum:	8
Avg/Min:	3.03
Max/Min:	5.24
UG (Adjacent Pts):	2.14
CV:	0.39
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	9
Avg KW over 5000 hours:	14.08
Max KW:	15.3

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

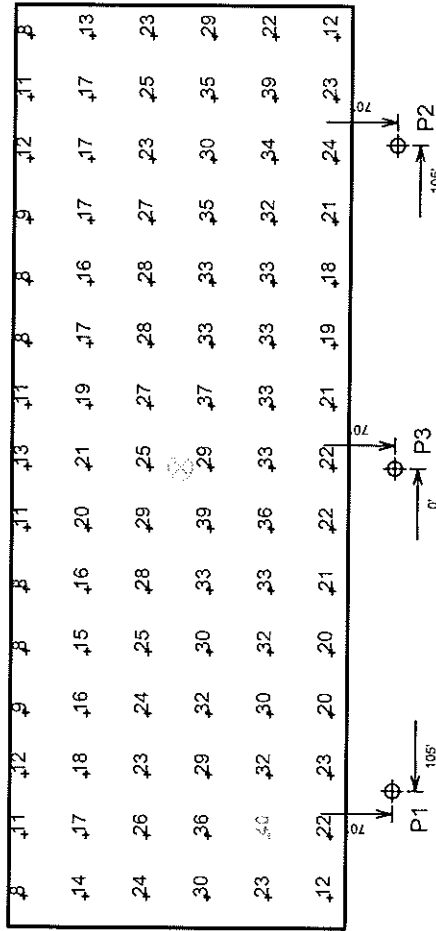
Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Joel DeBoef

File #: 136657-R Date: 26-Jan-09

Pole location(s) ± dimensions are relative to 0.0 reference point(s) ☒



SCALE IN FEET 1 : 60

