

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	P1-P2	60'	-	60'	1500W MZ	5	5	0
1	P3	70'	-	70'	1500W MZ	8	8	0
1	P4	60'	3'	63'	1500W MZ	5	5	0
2	P5, P7	70'	-	70'	1500W MZ	9	9	0
1	P6	70'	-	70'	1500W MZ	6	6	0
TOTALS						47	47	0



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Softball

Northern Kentucky University Student Recreation Fields
Highland Heights, KY

Softball

- Size: 275'/275'/275' - basepath 60'
- Grid Spacing = 30.0' x 30.0'
- Values given at 3.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5,000 hours
- Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION HORIZONTAL FOOTCANDLES

	Infield	Outfield
No. of Target Points:	16	65
Average:	35.5	31.4
Maximum:	43	43
Minimum:	27	21
Avg/Min:	1.32	1.49
Max/Min:	1.59	2.06
UG (Adjacent Pts):	1.31	1.52
CV:	0.15	0.17
Average Lamp Tilt Factor:		1.000
Number of Luminaires:		47
Avg KW over 5,000:		73.51
Max KW:		79.9

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.

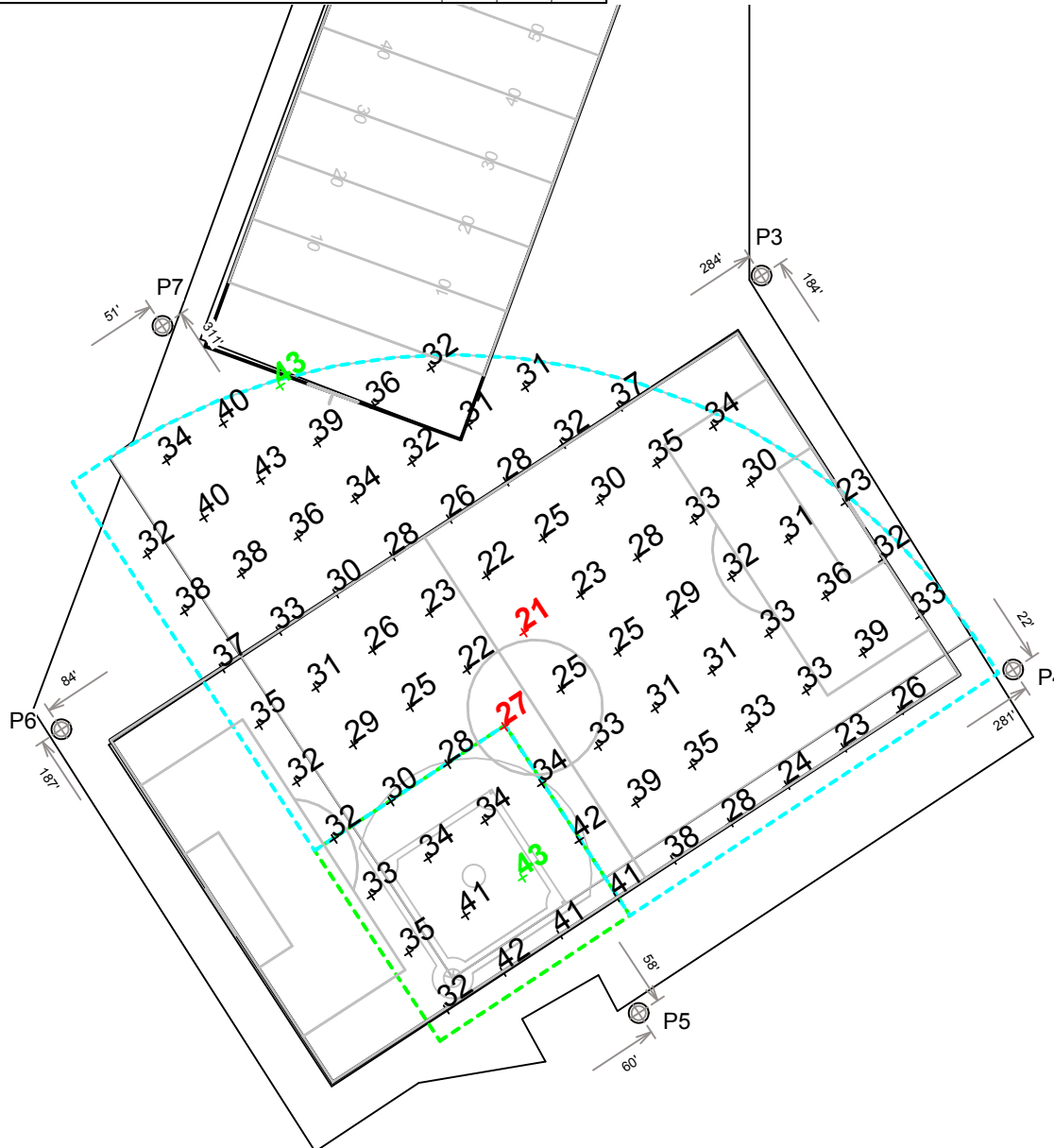
Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Brett Morris

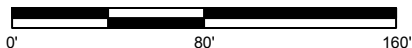
File #: 153579

Date: 08-Mar-12

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SCALE IN FEET 1 : 80



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
2	P1-P2	60'	-	60'	1500W MZ	5	5	0
1	P3	70'	-	70'	1500W MZ	8	8	0
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2	P5, P7	70'	-	70'	1500W MZ	9	9	0
1	P6	70'	-	70'	1500W MZ	6	6	0
7	TOTALS					47	47	0



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Soccer

Northern Kentucky University Student Recreation Fields
Highland Heights, KY

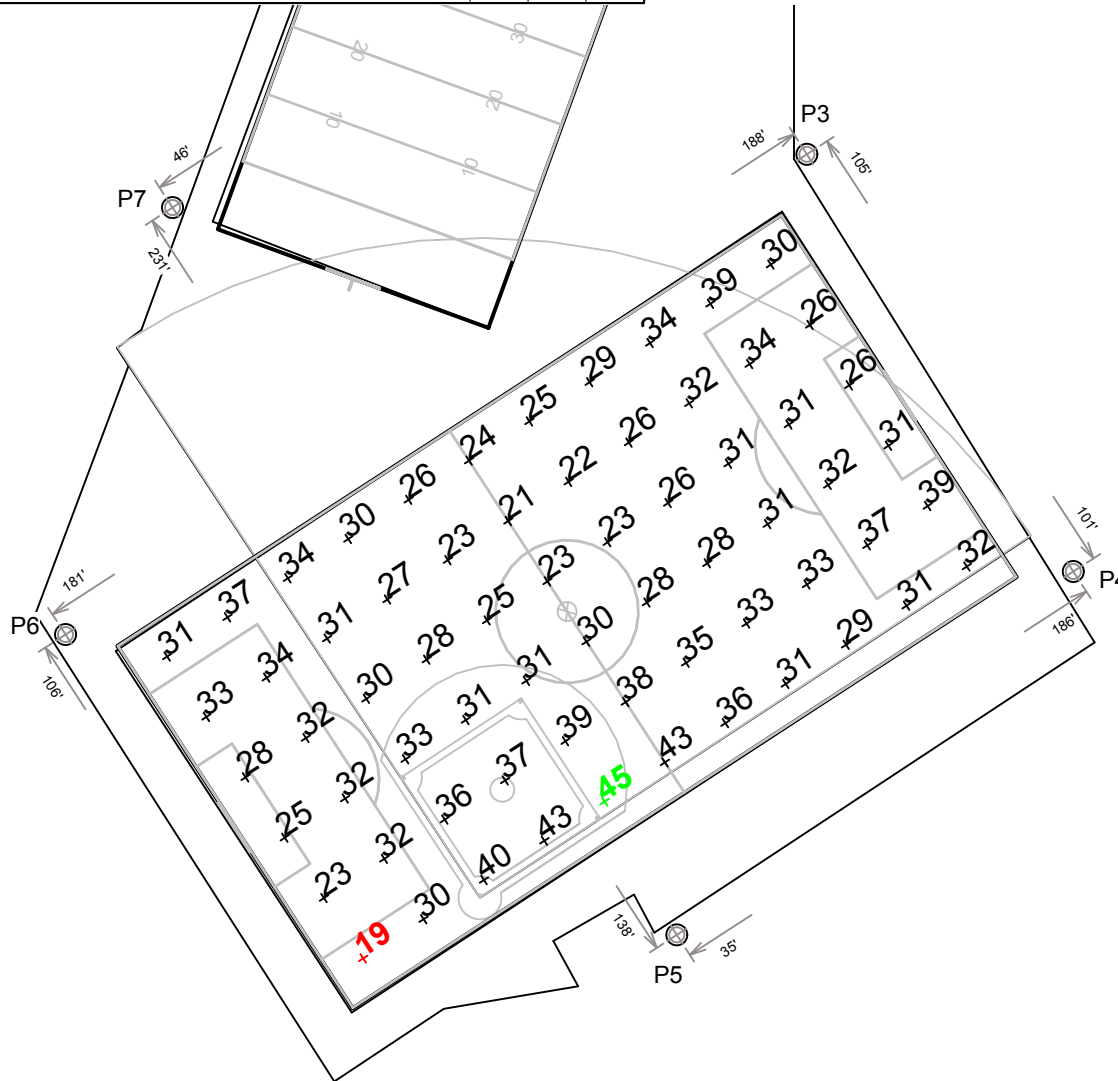
Soccer

- Size: 330' x 180'
- Grid Spacing = 30.0' x 30.0'
- Values given at 3.0' above grade

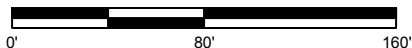
- Luminaire Type: Green Generation
- Rated Lamp Life: 5,000 hours
- Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION HORIZONTAL FOOTCANDLES

Entire Grid	
No. of Target Points:	66
Average:	31.0
Maximum:	45
Minimum:	19
Avg/Min:	1.61
Max/Min:	2.32
UG (Adjacent Pts):	1.56
CV:	0.18
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	47
Avg KW over 5,000:	73.51
Max KW:	79.9



SCALE IN FEET 1 : 80



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

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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Pole				Luminaires				
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2	P5, P7	70'	-	70'	1500W MZ	9	9	0
1	P6	70'	-	70'	1500W MZ	6	6	0
7	← TOTALS →					47	47	0



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Football

Northern Kentucky University Student Recreation Fields
Highland Heights, KY

Football

- Size: 360' x 120'
- Grid Spacing = 30.0' x 30.0'
- Values given at 3.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5,000 hours
- Avg Lumens/Lamp: 134,000

**CONSTANT ILLUMINATION
HORIZONTAL FOOTCANDLES**

Entire Grid	
No. of Target Points:	48
Average:	31.4
Maximum:	43
Minimum:	20
Avg/Min:	1.53
Max/Min:	2.09
UG (Adjacent Pts):	1.70
CV:	0.18
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	47
Avg KW over 5,000:	73.51
Max KW:	79.9

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.

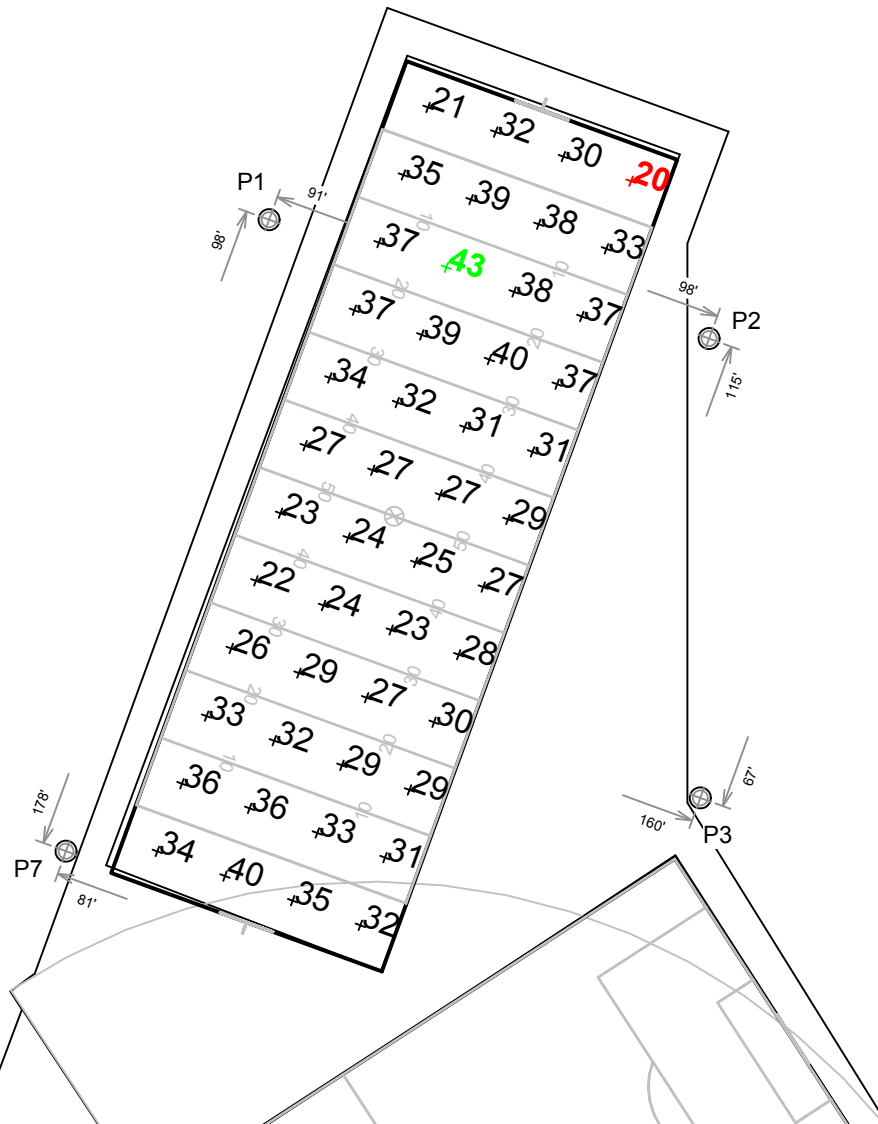
Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

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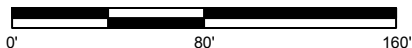
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SCALE IN FEET 1 : 80



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EQUIPMENT LIST FOR AREAS SHOWN									
Pole			Luminaires						
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
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2	P5, P7	70'	-	70'	1500W MZ	9	9	0	
1	P6	70'	-	70'	1500W MZ	6	6	0	
7	TOTALS						47	47	0



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Football

Northern Kentucky University Student Recreation Fields
Highland Heights, KY

Entire Area

- Size: 360' x 120'
- Grid Spacing = 30.0' x 30.0'
- Values given at 3.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5,000 hours
- Avg Lumens/Lamp: 134,000

**CONSTANT ILLUMINATION
HORIZONTAL FOOTCANDLES**

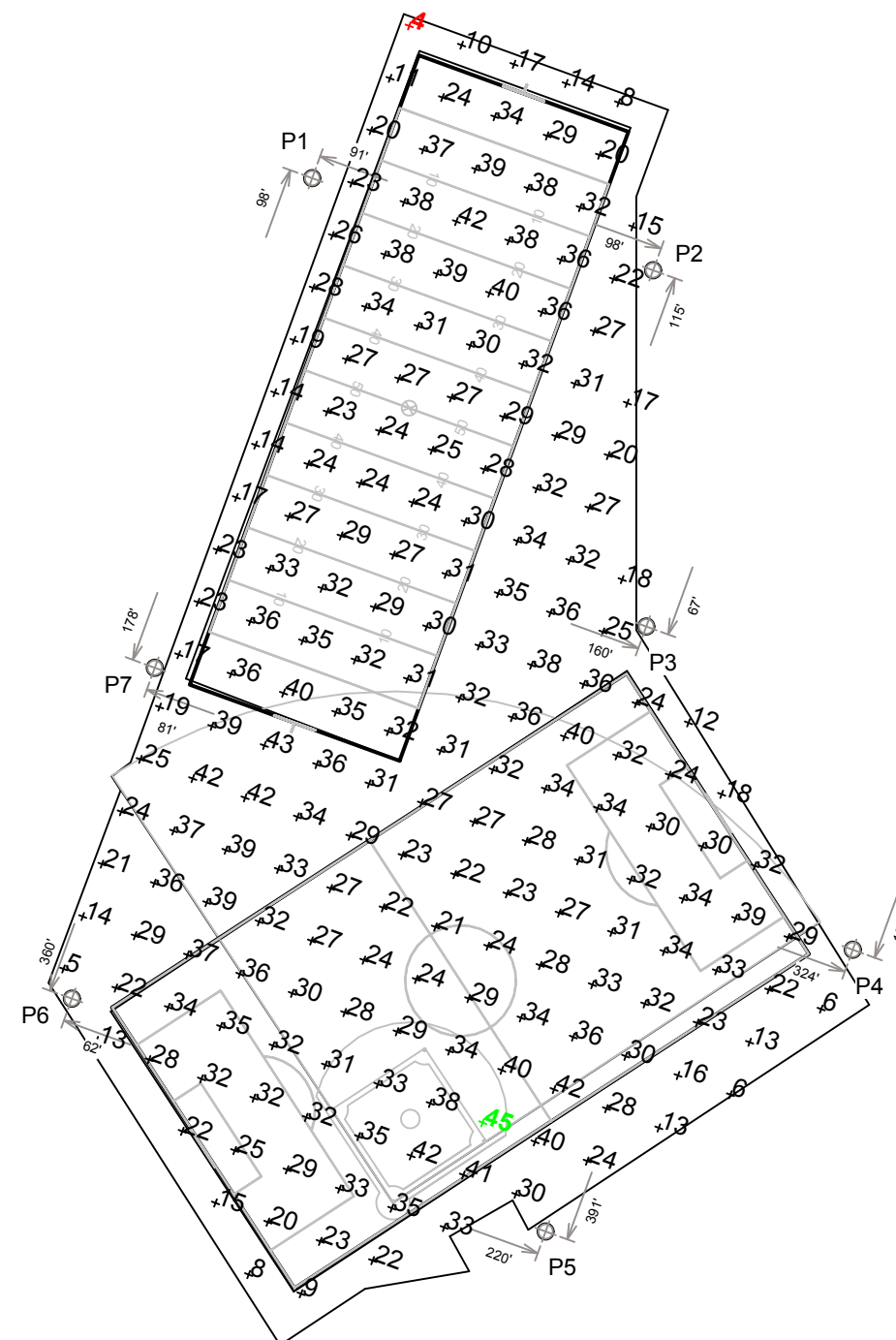
Entire Grid	
No. of Target Points:	195
Average:	28.4
Maximum:	45
Minimum:	4
Avg/Min:	6.91
Max/Min:	10.92
UG (Adjacent Pts):	4.05
CV:	0.30
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	47
Avg KW over 5,000:	73.51
Max KW:	79.9

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

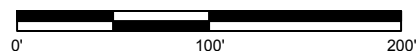
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Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

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



SCALE IN FEET 1 : 100



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GUARANTEED PERFORMANCE

EQUIPMENT LAYOUT

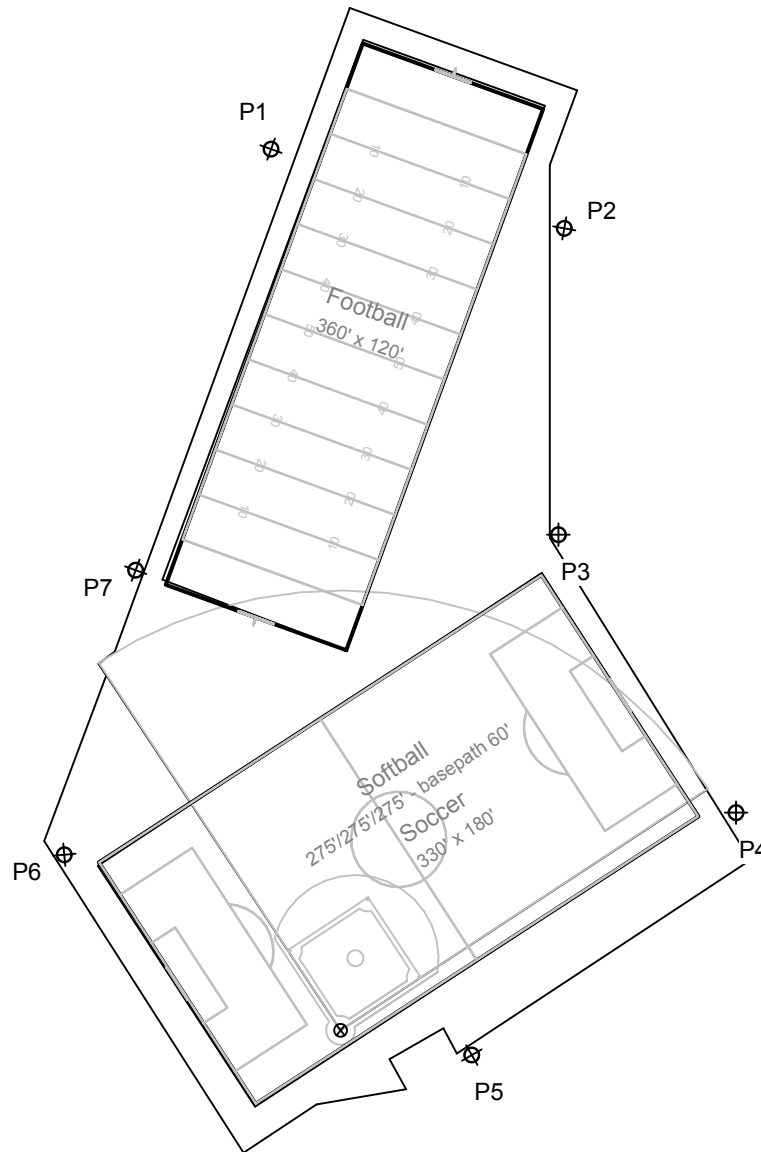
Northern Kentucky University Student Rec
Highland Heights, KY

INCLUDES:

- Football
- Soccer
- Softball

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.



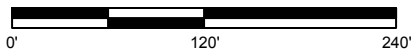
EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	Pole		Luminaires		
		SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY/POLE
2	P1-P2	60'	-	60'	1500W MZ	5
1	P3	70'	-	70'	1500W MZ	8
1	P4	60'	3'	63'	1500W MZ	5
2	P5, P7	70'	-	70'	1500W MZ	9
1	P6	70'	-	70'	1500W MZ	6
TOTALS						47

SINGLE LUMINAIRE AMPERAGE DRAW CHART

Ballast Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)						
	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
Single Phase Voltage	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
1500 watt MZ	8.6	7.7	7.5	6.5	5.1	-	3.7

SCALE IN FEET 1 : 120



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