

**EQUIPMENT LIST FOR AREAS SHOWN**

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	S1	70'	-	70'	1500W MZ	6	6	0
2	S2, S4	70'	-	70'	1500W MZ	5	5	0
1	S3	70'	-	70'	1500W MZ	5/2*	5	2
4	<b>TOTALS</b>					23	21	2

\* This structure utilizes a back-to-back mounting configuration



**GUARANTEED PERFORMANCE**

**ILLUMINATION SUMMARY**

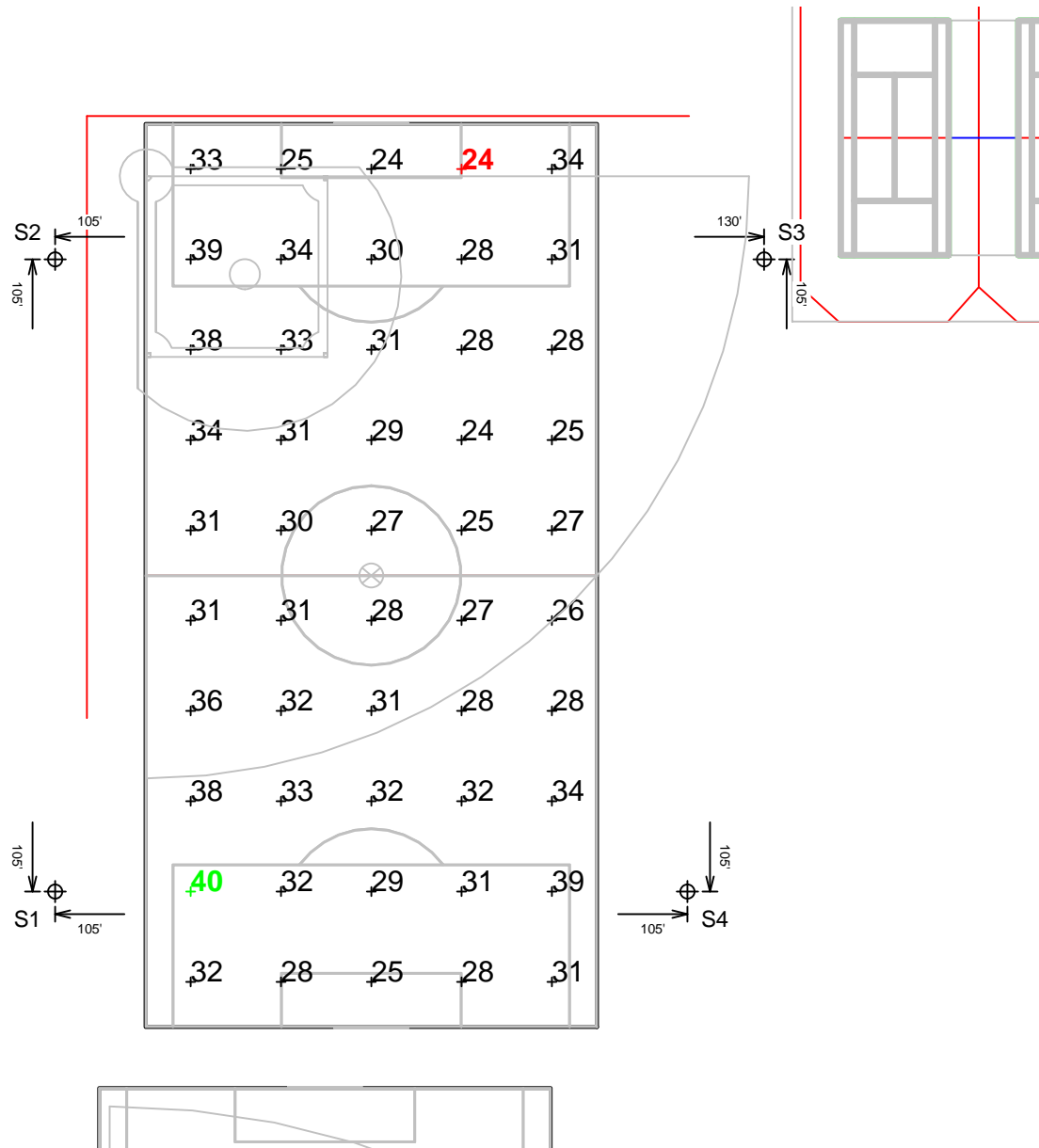
**Soccer 1**  
 Banning Ranch Park  
 Newport Beach, CA

**Soccer 1**  
 - Size: 300' x 150'  
 - 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:	50
<b>Average:</b>	<b>30.6</b>
Maximum:	40
Minimum:	24
Avg/Min:	1.27
<b>Max/Min:</b>	<b>1.69</b>
UG (Adjacent Pts):	1.41
CV:	0.13
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	21
Avg KW over 5,000:	32.84
Max KW:	35.7



**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: Josh Hawk

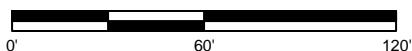
File #: 153435L

Date: 13-May-11

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SCALE IN FEET 1 : 60

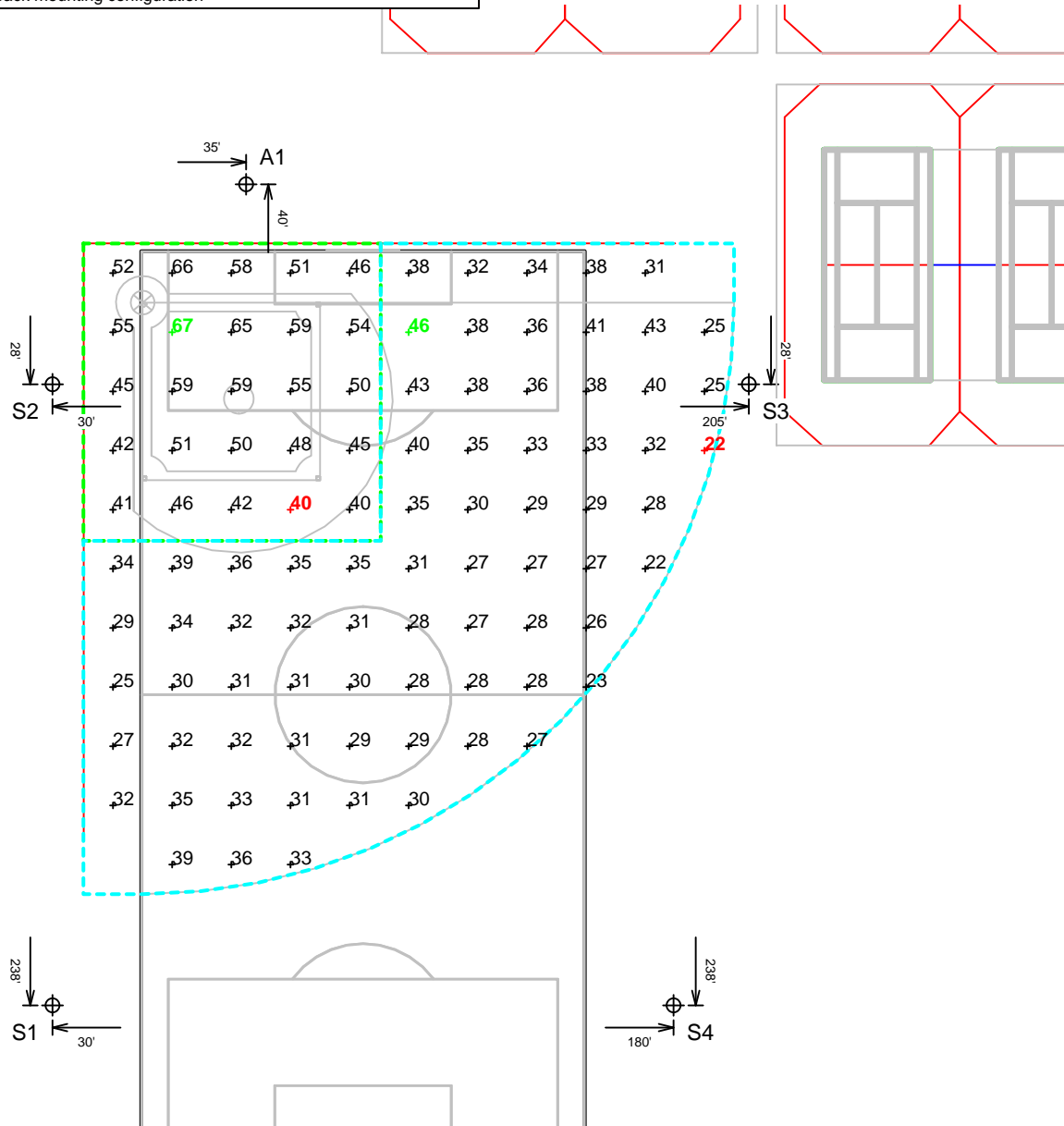


Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

**EQUIPMENT LIST FOR AREAS SHOWN**

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	A1	60'	-	60'	1500W MZ	4	4	0
1	S1	70'	-	70'	1500W MZ	6	6	0
2	S2, S4	70'	-	70'	1500W MZ	5	5	0
1	S3	70'	-	70'	1500W MZ	5/2*	5	2
5	<b>TOTALS</b>					27	25	2

\* This structure utilizes a back-to-back mounting configuration



**GUARANTEED PERFORMANCE**

**ILLUMINATION SUMMARY**

**Softball 1**  
 Banning Ranch Park  
 Newport Beach, CA

**Softball 1**  
 - Size: 200'/200'/200' - basepath 60'  
 - Grid Spacing = 20.0' x 20.0'  
 - 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:	25	73
<b>Average:</b>	<b>51.4</b>	<b>32.0</b>
Maximum:	67	46
Minimum:	40	22
Avg/Min:	1.30	1.48
<b>Max/Min:</b>	<b>1.70</b>	<b>2.10</b>
UG (Adjacent Pts):	1.31	1.68
CV:	0.16	0.16
Average Lamp Tilt Factor:		1.000
Number of Luminaires:		25
Avg KW over 5,000:		39.1
Max KW:		42.5

**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: Josh Hawk

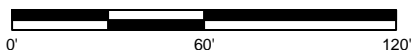
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SCALE IN FEET 1 : 60



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	S5-S6	70'	-	70'	1500W MZ	5	5	0
2	S7-S8	80'	-	80'	1500W MZ	10	5	5
4	← TOTALS →					30	20	10



**GUARANTEED PERFORMANCE**

**ILLUMINATION SUMMARY**

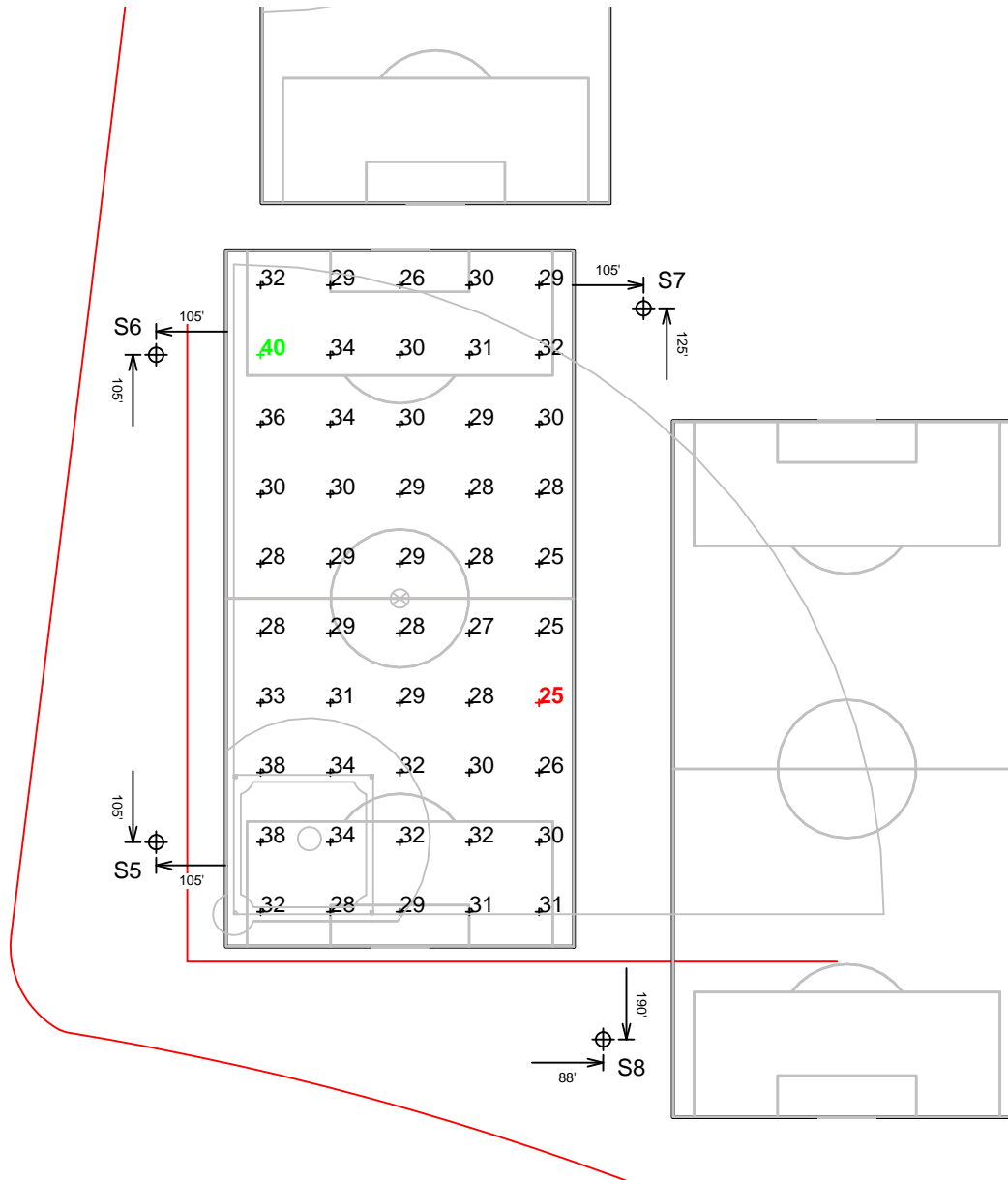
**Soccer 2**  
 Banning Ranch Park  
 Newport Beach, CA

**Soccer 2**  
 · Size: 300' x 150'  
 · Grid Spacing = 30.0' x 30.0'  
 · Values given at 3.0' above grade

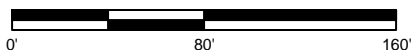
· Luminaire Type: Green Generation  
 · Rated Lamp Life: 5,000 hours  
 · Avg Lumens/Lamp: 134,000

**CONSTANT ILLUMINATION HORIZONTAL FOOTCANDLES**

Entire Grid	
No. of Target Points:	50
<b>Average:</b>	<b>30.3</b>
Maximum:	40
Minimum:	25
Avg/Min:	1.23
<b>Max/Min:</b>	<b>1.61</b>
UG (Adjacent Pts):	1.24
CV:	0.11
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	20
Avg KW over 5,000:	31.28
Max KW:	34.0



SCALE IN FEET 1 : 80



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

By: Josh Hawk

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Date: 13-May-11

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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
1	A2	70'	-	70'	1500W MZ	4	4	0
2	S7-S8	80'	-	80'	1500W MZ	10	10	0
4	S9	70'	-	70'	1500W MZ	5	5	0
	S10, S5-S6							
7	← TOTALS →					44	44	0



**GUARANTEED PERFORMANCE**

**ILLUMINATION SUMMARY**

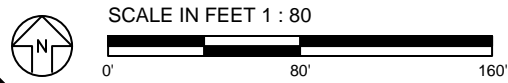
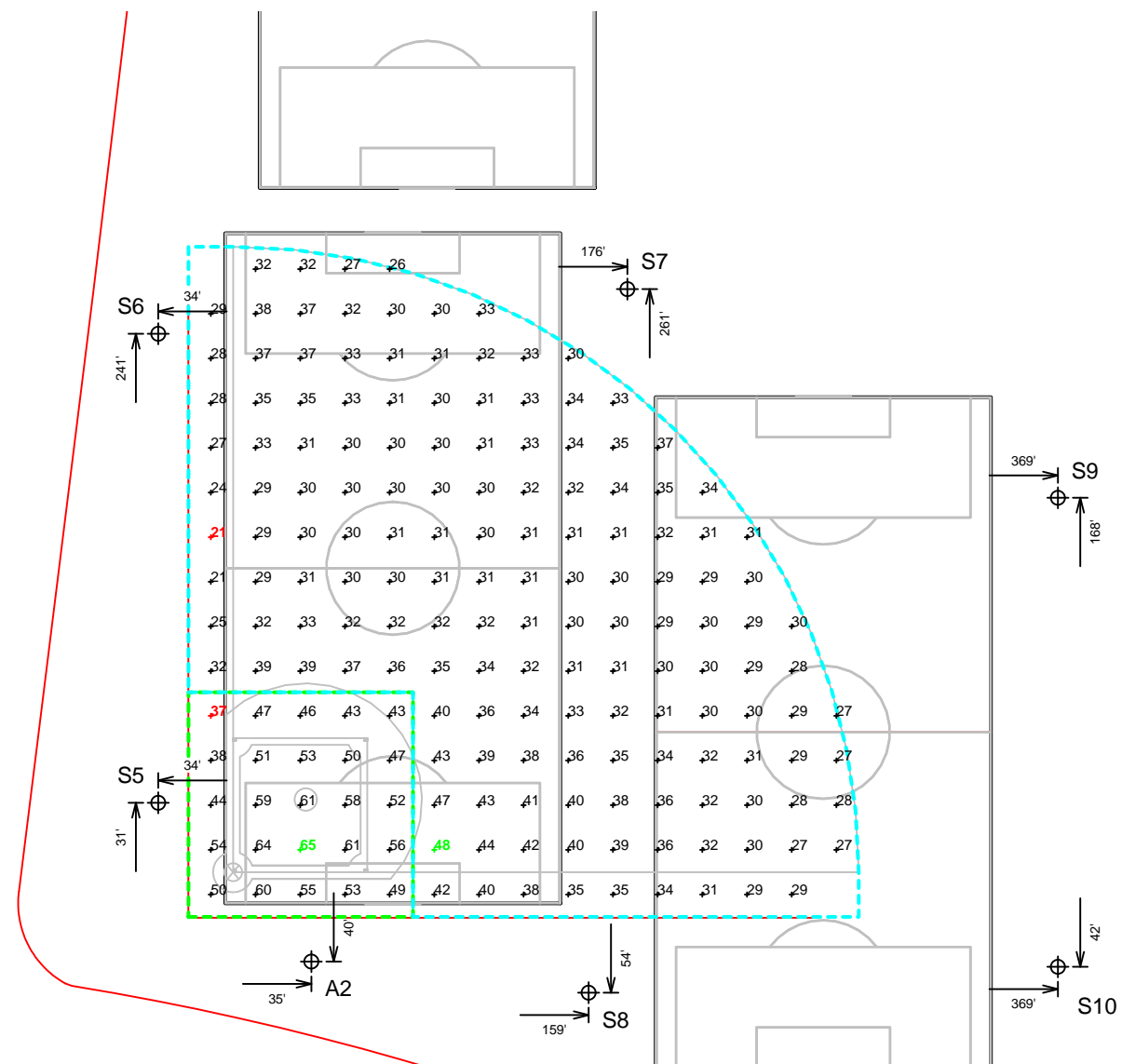
**Softball 2**  
 Banning Ranch Park  
 Newport Beach, CA

**Softball 2**  
 - Size: 280'/280'/280' - basepath 60'  
 - Grid Spacing = 20.0' x 20.0'  
 - 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:	25	156
<b>Average:</b>	<b>51.8</b>	<b>32.4</b>
Maximum:	65	48
Minimum:	37	21
Avg/Min:	1.40	1.55
<b>Max/Min:</b>	<b>1.76</b>	<b>2.30</b>
UG (Adjacent Pts):	1.35	1.38
CV:	0.15	0.13
Average Lamp Tilt Factor:		1.000
Number of Luminaires:		44
Avg KW over 5,000:		68.82
Max KW:		74.8



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

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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
2	S7-S8	80'	-	80'	1500W MZ	10	5	5
2	S10, S9	70'	-	70'	1500W MZ	5	5	0
4	← TOTALS →					30	20	10



**GUARANTEED PERFORMANCE**

**ILLUMINATION SUMMARY**

**Soccer 3**  
 Banning Ranch Park  
 Newport Beach, CA

**Soccer 3**  
 · Size: 300' x 150'  
 · 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:	50
<b>Average:</b>	<b>30.1</b>
Maximum:	43
Minimum:	24
Avg/Min:	1.24
<b>Max/Min:</b>	<b>1.77</b>
UG (Adjacent Pts):	1.42
CV:	0.14
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	20
Avg KW over 5,000:	31.28
Max KW:	34.0

**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.

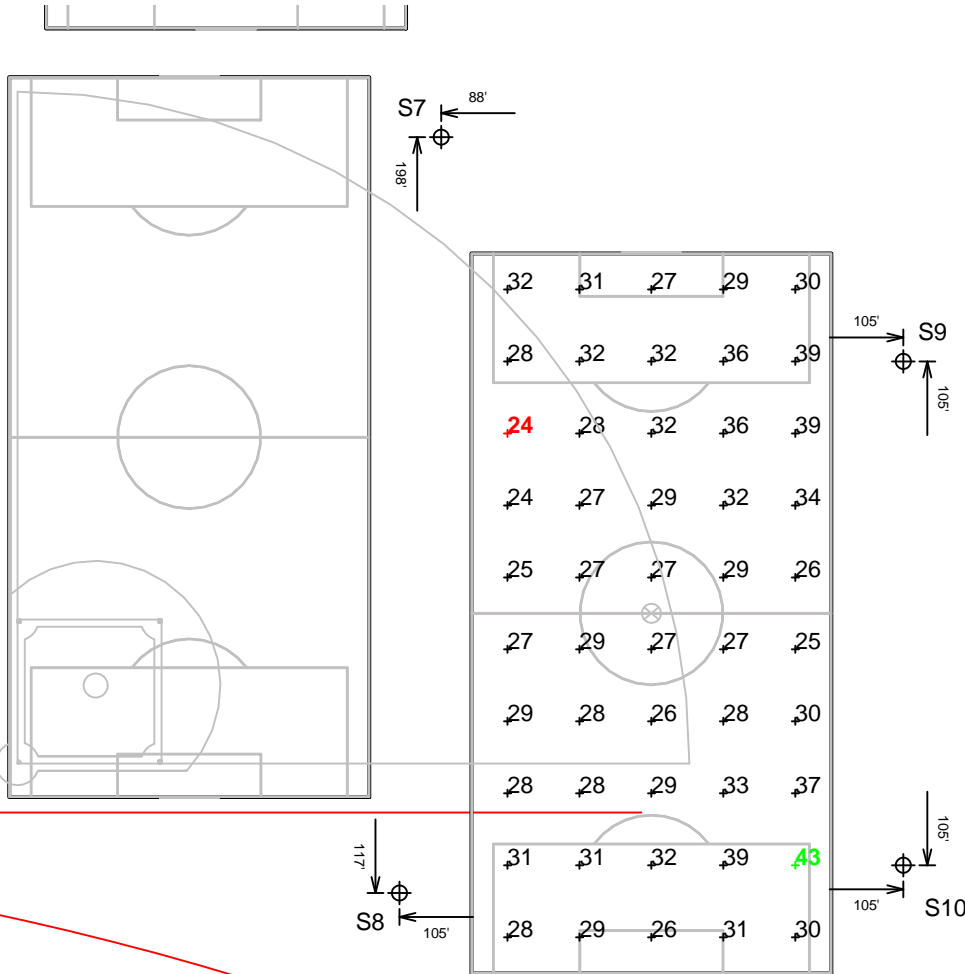
**Installation Requirements:** Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Josh Hawk

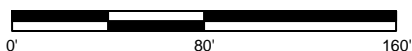
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SCALE IN FEET 1 : 80



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	T1, T4	40'	-	40'	1500W MZ	2	2	0
1	T2	40'	-	40'	1500W MZ	4	2	2
1	T5	40'	-	40'	1500W MZ	4/2*	2	4
4	<b>TOTALS</b>					14	8	6

\* This structure utilizes a back-to-back mounting configuration



**GUARANTEED PERFORMANCE**

**ILLUMINATION SUMMARY**

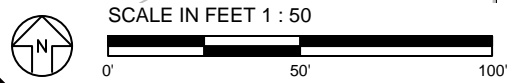
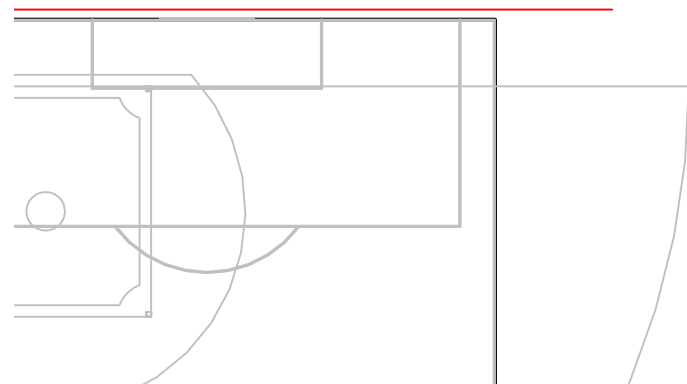
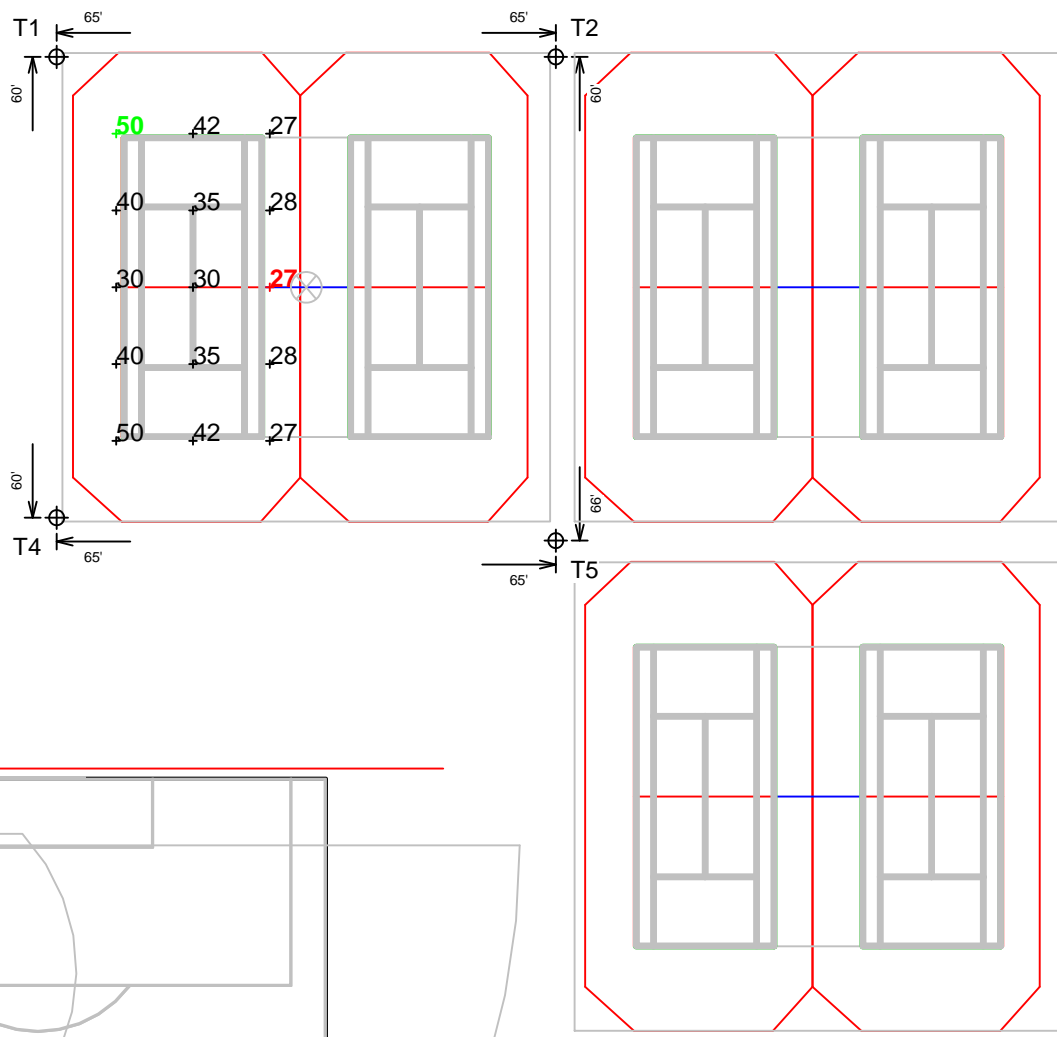
**Tennis 1-2**  
 Banning Ranch Park  
 Newport Beach, CA

**Tennis 1-2\_1**

- Size: 2 Court - 23' Spacing
- Grid Spacing = 20.0' x 20.0'
- 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:	15
Average:	35.6
Maximum:	50
Minimum:	27
Avg/Min:	1.33
Max/Min:	1.88
UG (Adjacent Pts):	1.54
CV:	0.23
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	8
Avg KW over 5,000:	12.51
Max KW:	13.6



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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EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	T1, T4	40'	-	40'	1500W MZ	2	2	0
1	T2	40'	-	40'	1500W MZ	4	2	2
1	T5	40'	-	40'	1500W MZ	4/2*	2	4
4	<b>TOTALS</b>					14	8	6

\* This structure utilizes a back-to-back mounting configuration



**GUARANTEED PERFORMANCE**

**ILLUMINATION SUMMARY**

**Tennis 1-2**

Banning Ranch Park  
Newport Beach, CA

**Tennis 1-2\_2**

- Size: 2 Court - 23' Spacing
- Grid Spacing = 20.0' x 20.0'
- 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:	15
Average:	34.6
Maximum:	50
Minimum:	26
Avg/Min:	1.31
Max/Min:	1.88
UG (Adjacent Pts):	1.57
CV:	0.23

Average Lamp Tilt Factor:	1.000
Number of Luminaires:	8
Avg KW over 5,000:	12.51
Max KW:	13.6

**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.

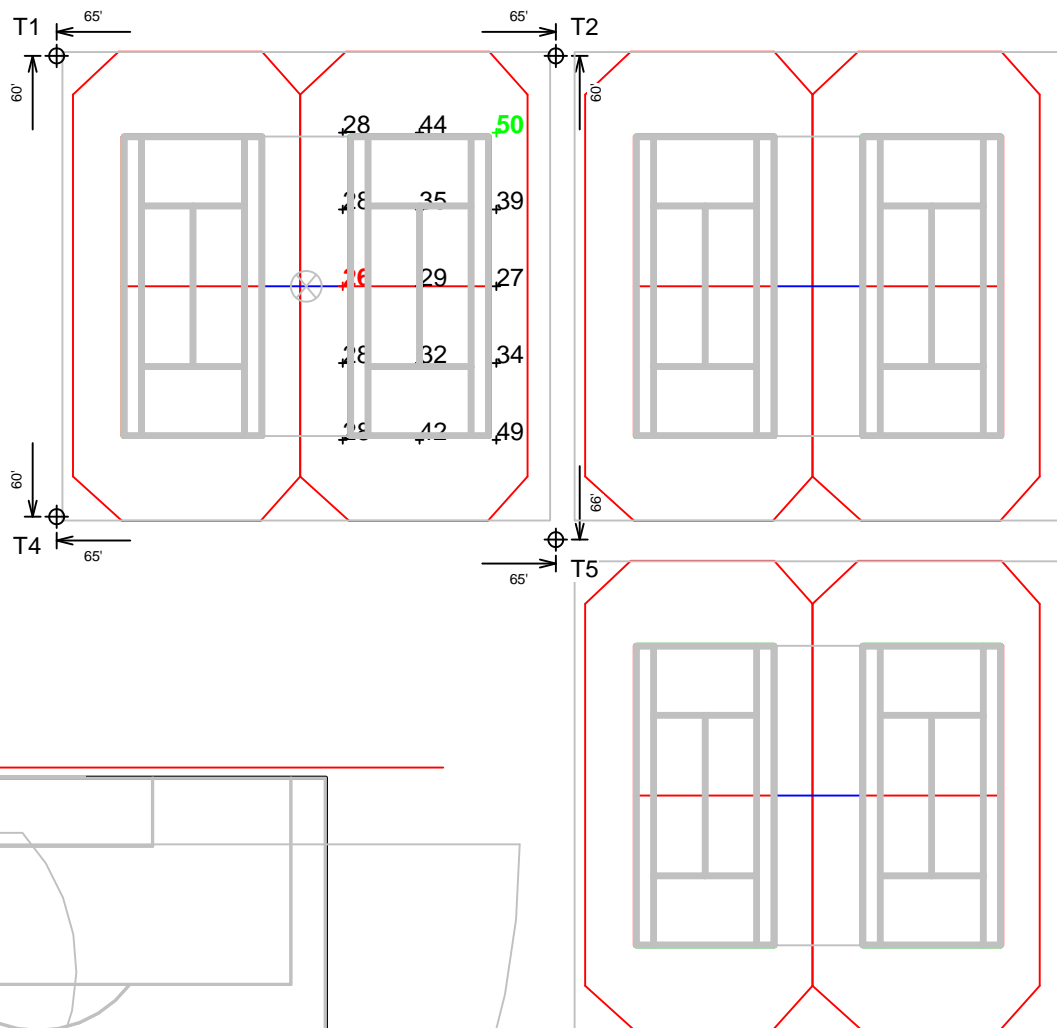
**Installation Requirements:** Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Josh Hawk

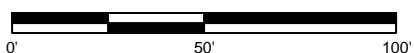
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Date: 13-May-11

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SCALE IN FEET 1 : 50



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	T2, T6	40'	-	40'	1500W MZ	4	2	2
1	T3	40'	-	40'	1500W MZ	2	2	0
1	T5	40'	-	40'	1500W MZ	4/2*	2	4
4	← TOTALS →					16	8	8

\* This structure utilizes a back-to-back mounting configuration



**GUARANTEED PERFORMANCE**

**ILLUMINATION SUMMARY**

**Tennis 3-4**

Banning Ranch Park  
Newport Beach, CA

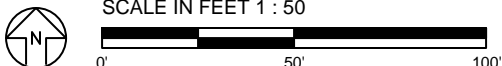
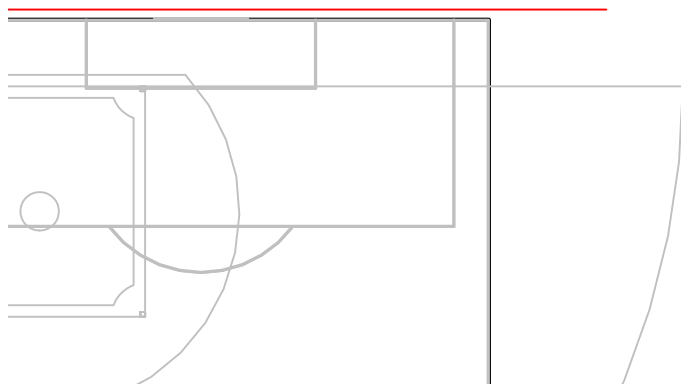
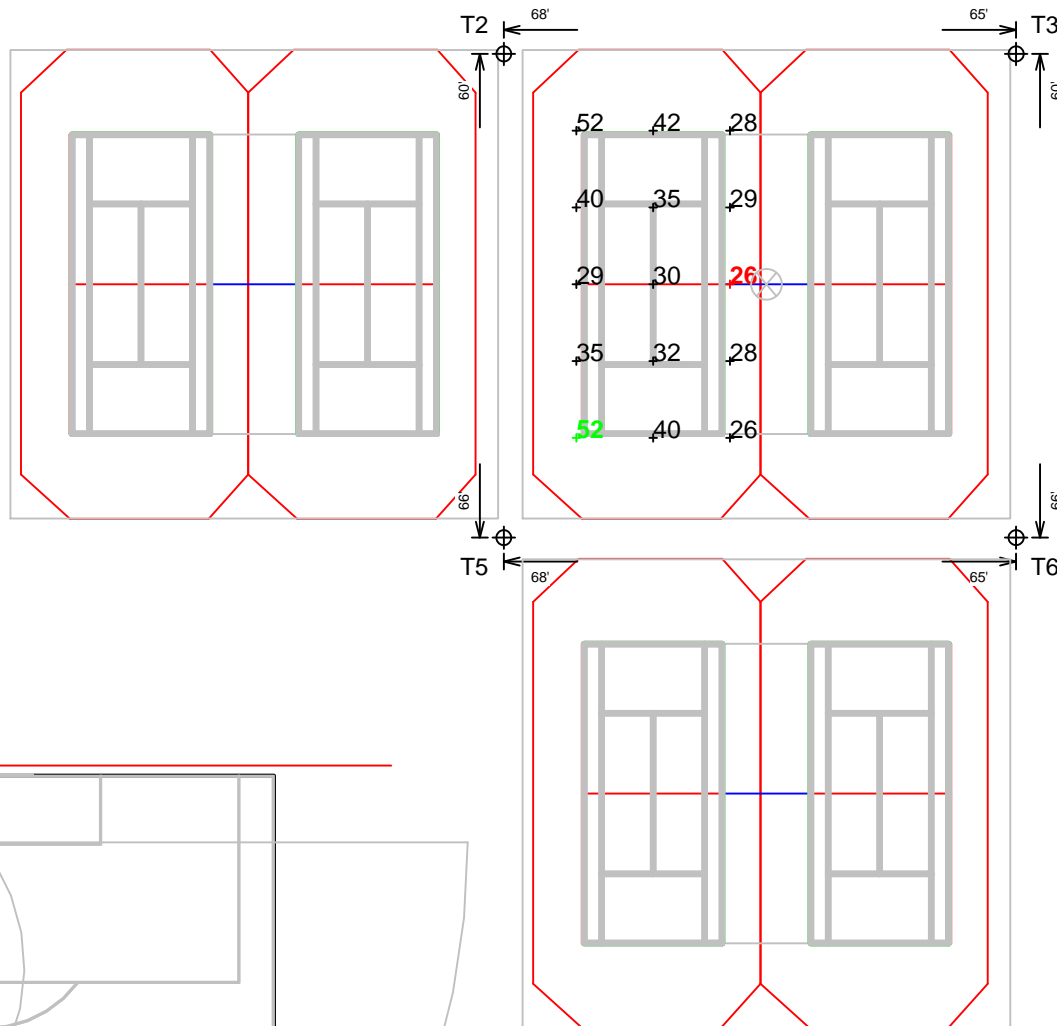
**Tennis 3-4\_3**

- Size: 2 Court - 23' Spacing
- Grid Spacing = 20.0' x 20.0'
- 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:	15
Average:	34.8
Maximum:	52
Minimum:	26
Avg/Min:	1.34
Max/Min:	1.99
UG (Adjacent Pts):	1.52
CV:	0.25
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	8
Avg KW over 5,000:	12.51
Max KW:	13.6



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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Date: 13-May-11

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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
2	T2, T6	40'	-	40'	1500W MZ	4	2	2
1	T3	40'	-	40'	1500W MZ	2	2	0
1	T5	40'	-	40'	1500W MZ	4/2*	2	4
4	← TOTALS →					16	8	8

\* This structure utilizes a back-to-back mounting configuration



**GUARANTEED PERFORMANCE**

**ILLUMINATION SUMMARY**

**Tennis 3-4**

Banning Ranch Park  
Newport Beach, CA

**Tennis 3-4\_4**

- Size: 2 Court - 23' Spacing
- Grid Spacing = 20.0' x 20.0'
- 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:	15
Average:	35.4
Maximum:	52
Minimum:	26
Avg/Min:	1.34
Max/Min:	1.97
UG (Adjacent Pts):	1.55
CV:	0.24

Average Lamp Tilt Factor:	1.000
Number of Luminaires:	8
Avg KW over 5,000:	12.51
Max KW:	13.6

**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.

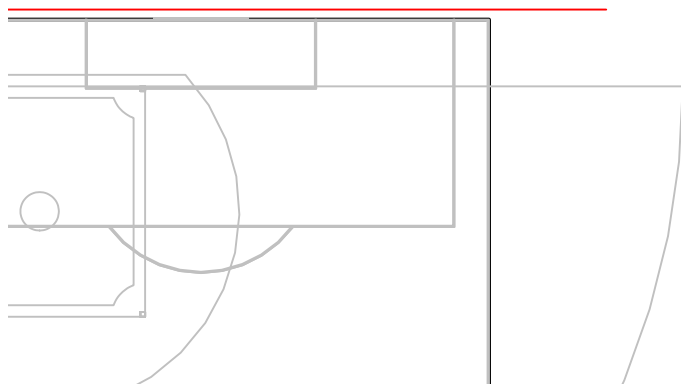
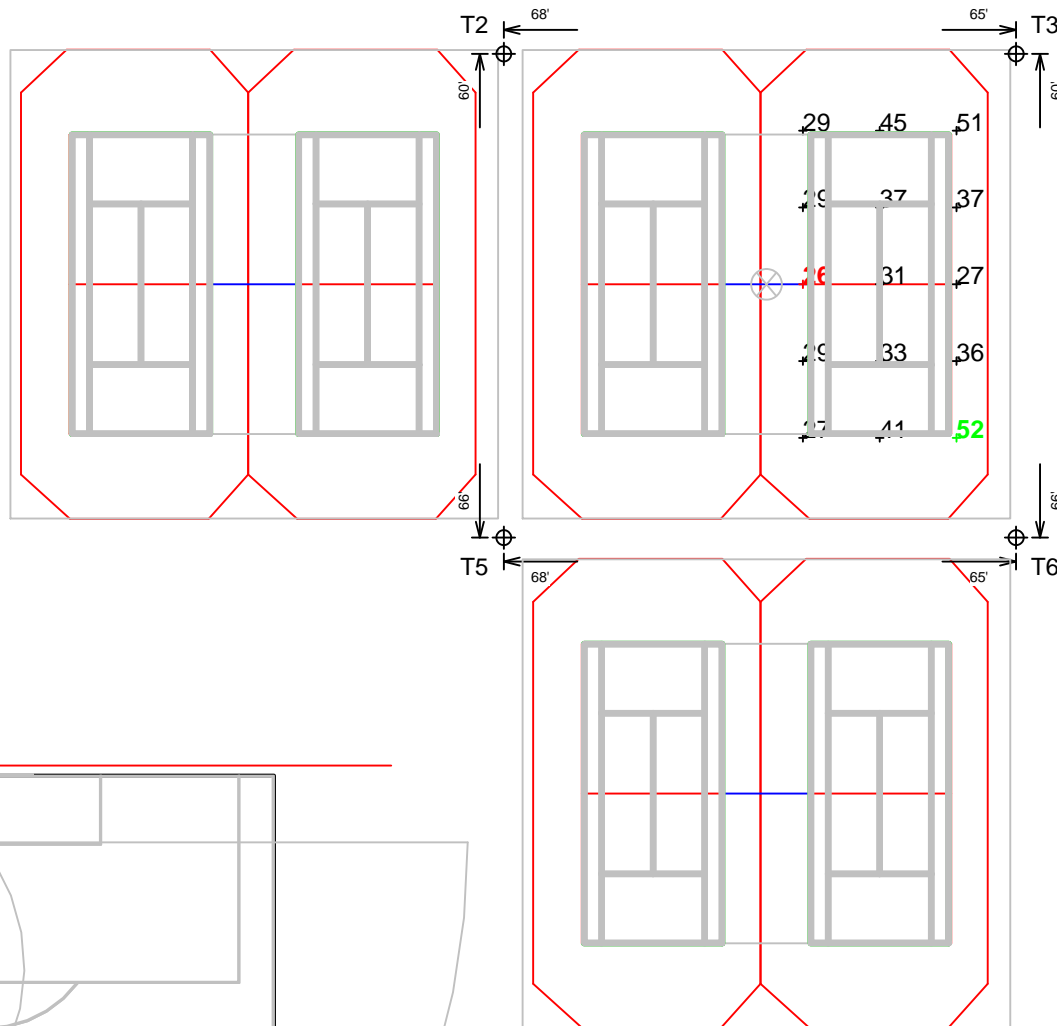
**Installation Requirements:** Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Josh Hawk

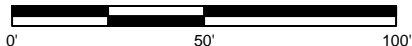
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Date: 13-May-11

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SCALE IN FEET 1 : 50



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
1	S3	70'	-	70'	1500W MZ	5/2*	2	5
1	T5	40'	-	40'	1500W MZ	4/2*	2	4
1	T6	40'	-	40'	1500W MZ	4	2	2
1	T7	40'	-	40'	1500W MZ	2	2	0
4	<b>TOTALS</b>					19	8	11

\* This structure utilizes a back-to-back mounting configuration



**GUARANTEED PERFORMANCE**

**ILLUMINATION SUMMARY**

**Tennis 5-6**

Banning Ranch Park  
Newport Beach, CA

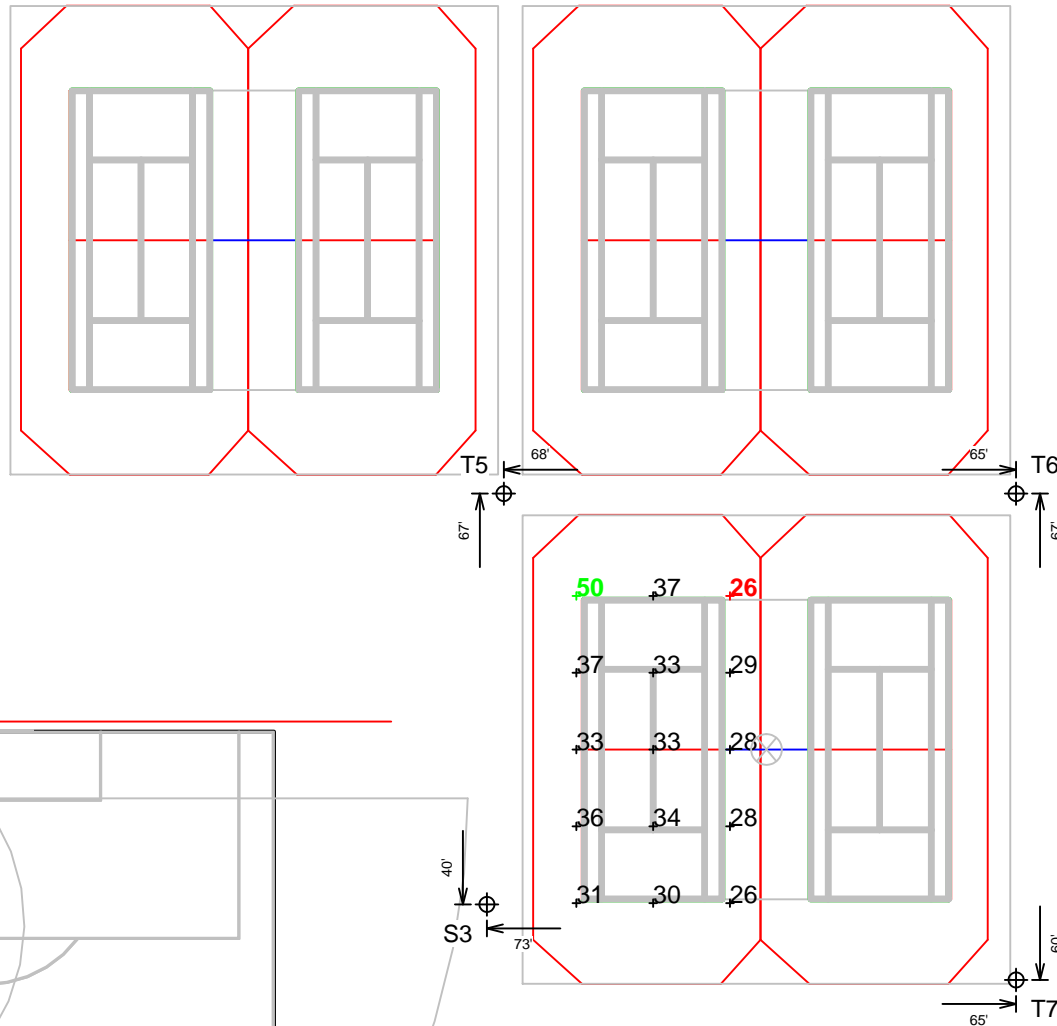
**Tennis 5-6\_5**

- Size: 2 Court - 23' Spacing
- Grid Spacing = 20.0' x 20.0'
- 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:	15
Average:	32.7
Maximum:	50
Minimum:	26
Avg/Min:	1.25
Max/Min:	1.92
UG (Adjacent Pts):	1.43
CV:	0.18
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	8
Avg KW over 5,000:	12.51
Max KW:	13.6



**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: Josh Hawk

File #: 153435L

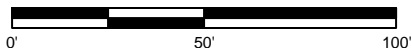
Date: 13-May-11

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



SCALE IN FEET 1 : 50



EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	S3	70'	-	70'	1500W MZ	5/2*	2	5
1	T5	40'	-	40'	1500W MZ	4/2*	2	4
1	T6	40'	-	40'	1500W MZ	4	2	2
1	T7	40'	-	40'	1500W MZ	2	2	0
4	<b>TOTALS</b>					19	8	11

\* This structure utilizes a back-to-back mounting configuration



**GUARANTEED PERFORMANCE**

**ILLUMINATION SUMMARY**

**Tennis 5-6**

Banning Ranch Park  
Newport Beach, CA

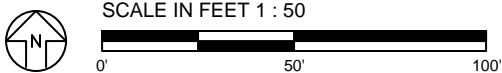
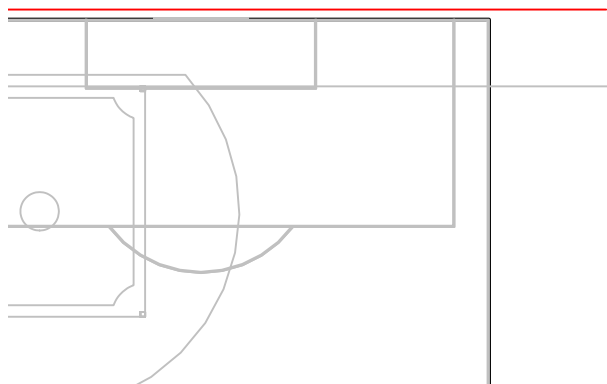
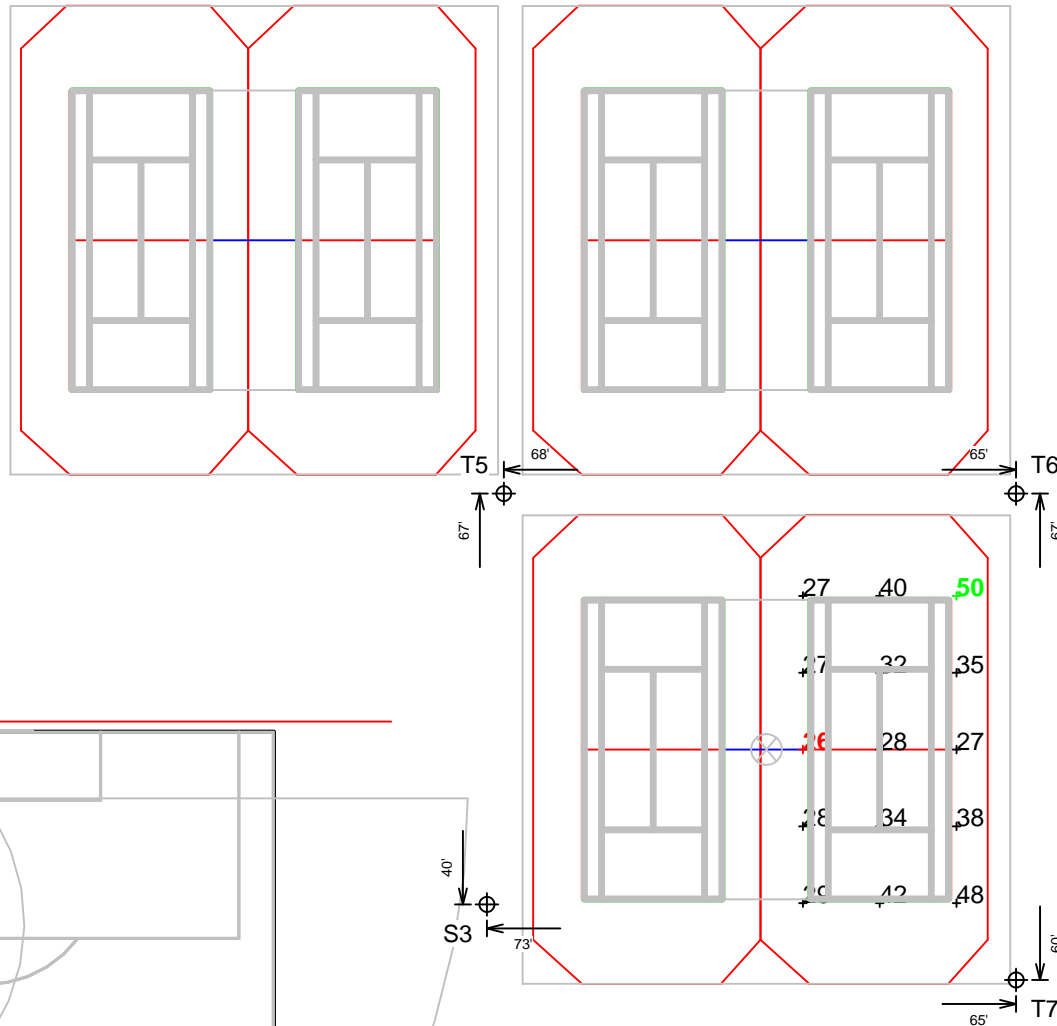
**Tennis 5-6\_6**

- Size: 2 Court - 23' Spacing
- Grid Spacing = 20.0' x 20.0'
- 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:	15
Average:	34.1
Maximum:	50
Minimum:	26
Avg/Min:	1.29
Max/Min:	1.88
UG (Adjacent Pts):	1.49
CV:	0.23
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	8
Avg KW over 5,000:	12.51
Max KW:	13.6



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.

By: Josh Hawk

File #: 153435L

Date: 13-May-11

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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		
1	A1	60'	-	60'	1500W MZ	4	4	0		
1	A2	70'	-	70'	1500W MZ	4	4	0		
1	S1	70'	-	70'	1500W MZ	6	6	0		
1	S3	70'	-	70'	1500W MZ	5/2*	7	0		
6	S4-S6, S9, S10, S2	70'	-	70'	1500W MZ	5	5	0		
2	S7-S8	80'	-	80'	1500W MZ	10	10	0		
4	T1, T3-T4, T7	40'	-	40'	1500W MZ	2	2	0		
2	T2, T6	40'	-	40'	1500W MZ	4	4	0		
1	T5	40'	-	40'	1500W MZ	4/2*	6	0		
19	<b>TOTALS</b>								93	93

\* This structure utilizes a back-to-back mounting configuration



### ILLUMINATION SUMMARY

**Property Line**  
Banning Ranch Park  
Newport Beach, CA

**Property Line**  
· Grid Spacing = 30.0'  
· Values given at 3.0' above grade  
  
· Luminaire Type: Green Generation  
· Rated Lamp Life: 5,000 hours  
· Avg Lumens/Lamp: 134,000

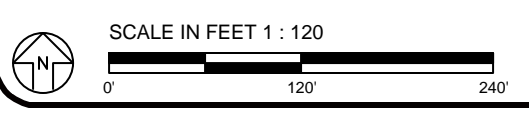
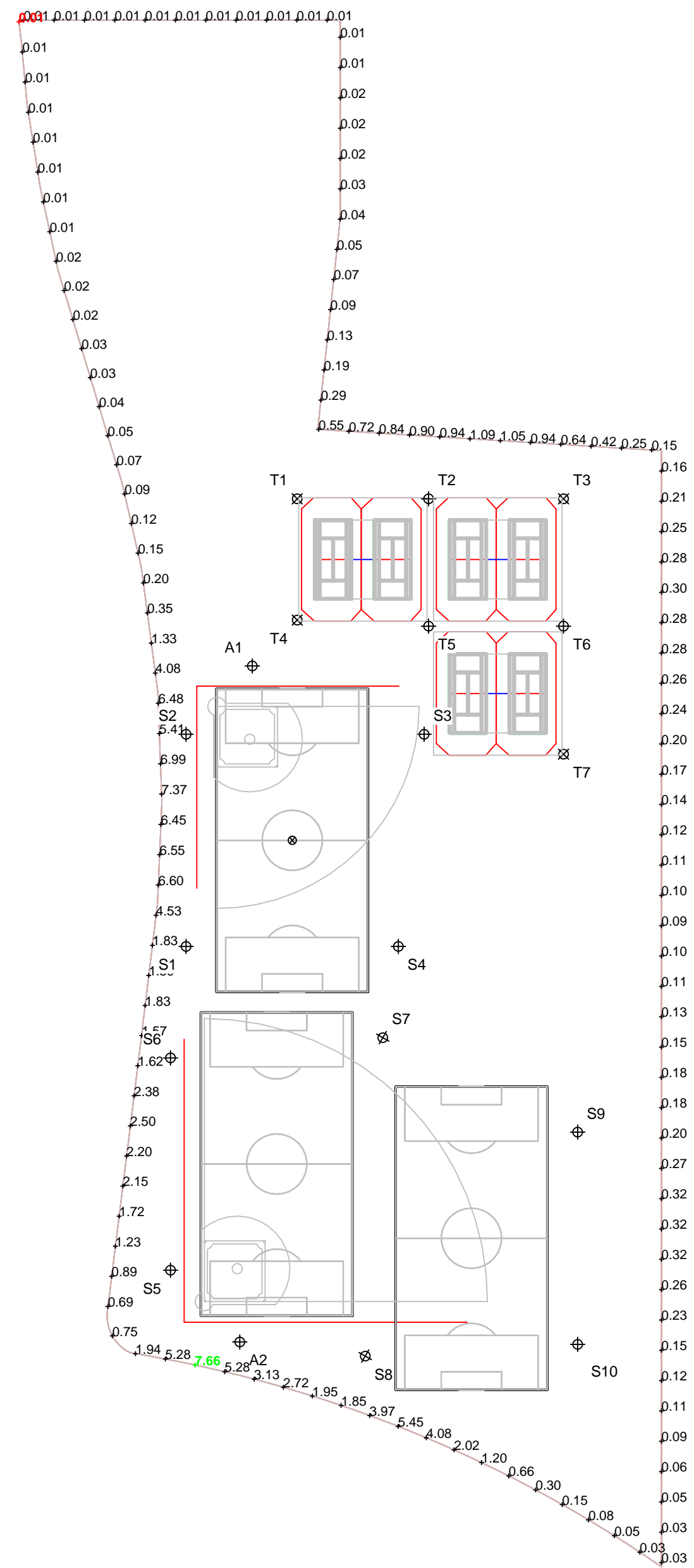
CONSTANT ILLUMINATION HORIZONTAL FOOTCANDLES	
Entire Grid	
No. of Target Points:	137
Average:	1.051
Maximum:	7.66
Minimum:	0.01
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	93
Avg KW over 5,000:	145.45
Max KW:	158.1

**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.



EQUIPMENT LIST FOR AREAS SHOWN										
Pole					Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS		
1	A1	60'	-	60'	1500W MZ	4	4	0		
1	A2	70'	-	70'	1500W MZ	4	4	0		
1	S1	70'	-	70'	1500W MZ	6	6	0		
1	S3	70'	-	70'	1500W MZ	5/2*	7	0		
6	S4-S6, S9, S10, S2	70'	-	70'	1500W MZ	5	5	0		
2	S7-S8	80'	-	80'	1500W MZ	10	10	0		
4	T1, T3-T4, T7	40'	-	40'	1500W MZ	2	2	0		
2	T2, T6	40'	-	40'	1500W MZ	4	4	0		
1	T5	40'	-	40'	1500W MZ	4/2*	6	0		
19	<b>TOTALS</b>								93	93

\* This structure utilizes a back-to-back mounting configuration



### ILLUMINATION SUMMARY

**Property Line**  
Banning Ranch Park  
Newport Beach, CA

**Property Line**  
· Grid Spacing = 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 MAX VERTICAL FOOTCANDLES

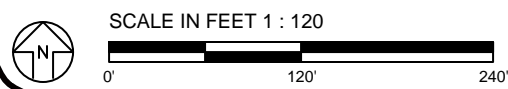
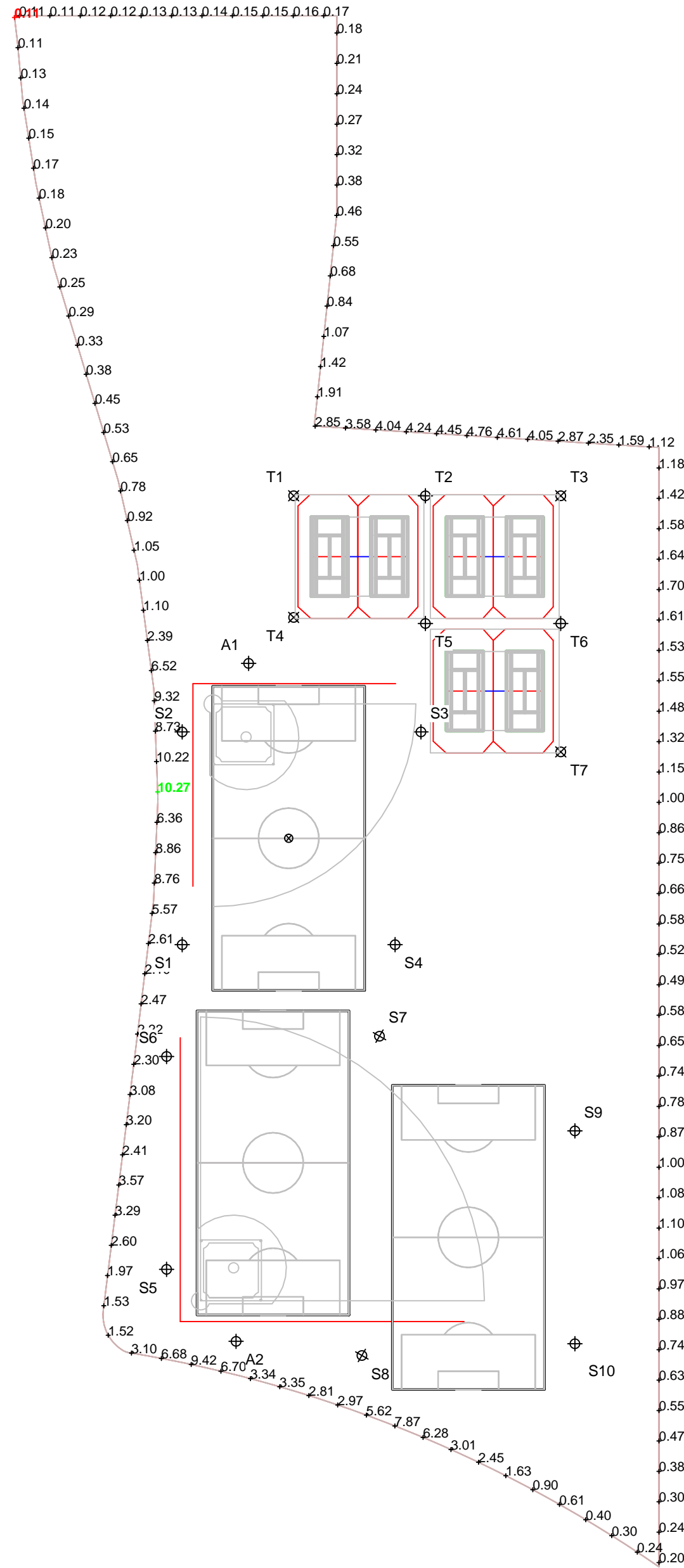
Entire Grid	
No. of Target Points:	137
Average:	1.996
Maximum:	10.27
Minimum:	0.11
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	93
Avg KW over 5,000:	145.45
Max KW:	158.1

**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.



**GUARANTEED PERFORMANCE**

**EQUIPMENT LAYOUT**

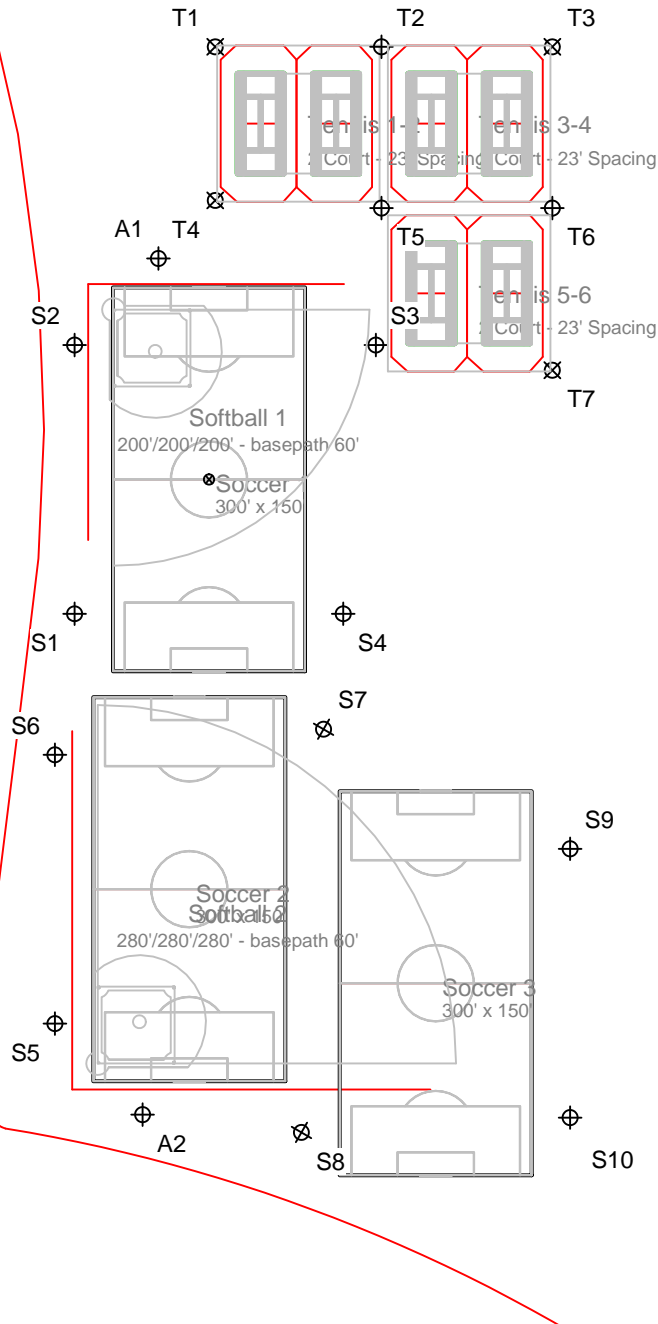
**Banning Ranch Park**  
Newport Beach, CA

**INCLUDES:**

- Soccer 1
- Soccer 2
- Soccer 3
- Softball 1
- Softball 2
- Tennis 1-2
- Tennis 3-4
- Tennis 5-6

**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	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE
1	A1	60'	-	60'	1500W MZ	4
1	A2	70'	-	70'	1500W MZ	4
1	S1	70'	-	70'	1500W MZ	6
1	S3	70'	-	70'	1500W MZ	5/2*
6	S4-S6, S9 S10, S2	70'	-	70'	1500W MZ	5
2	S7-S8	80'	-	80'	1500W MZ	10
4	T1, T3-T4 T7	40'	-	40'	1500W MZ	2
2	T2, T6	40'	-	40'	1500W MZ	4
1	T5	40'	-	40'	1500W MZ	4/2*
19	<b>TOTALS</b>					93

\* This structure utilizes a back-to-back mounting configuration

**SINGLE LUMINAIRE AMPERAGE DRAW CHART**

Ballast Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)								
	120 (60)	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	415 (60)	480 (60)
Single Phase Voltage	120 (60)	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	415 (60)	480 (60)
1500 watt MZ	15.0	8.6	7.7	7.5	6.5	5.1	4.7	-	3.7

By: Josh Hawk

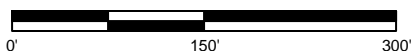
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SCALE IN FEET 1 : 150



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