

TPC Wisconsin Driving Range

Madison, WI USA

Lighting System

Pole/Fixture Summary						
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
P1	70'	70'	3	TLC-LED-1500	4.23 kW	A
		28'	2	TLC-BT-1500	2.86 kW	A
1			5		7.09 kW	

Circuit Summary			
Circuit	Description	Load	Fixture Qty
A	Driving Range	7.09 kW	5

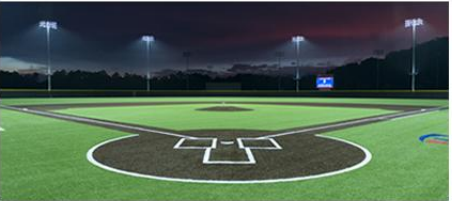
Fixture Type Summary							
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-BT-1500	LED 5700K - 75 CRI	1430W	160,000	>120,000	>120,000	>120,000	2
TLC-LED-1500	LED 5700K - 75 CRI	1410W	181,000	>120,000	>120,000	>120,000	3

Single Luminaire Amperage Draw Chart							
Driver Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)						
Single Phase Voltage	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
TLC-BT-1500	8.5	8.1	7.4	6.4	5.1	4.7	3.7
TLC-LED-1500	8.4	7.9	7.3	6.3	5.0	4.6	3.6

Light Level Summary

Calculation Grid Summary								
Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Driving Range 100'	Golfer's Eye	1.22	0	11	262.38		A	5
Driving Range 100'	North Illuminance	0.91	0	9	3344.58		A	5
Driving Range 25'	Golfer's Eye	3.07	0	27	0.00		A	5
Driving Range 25'	North Illuminance	2.69	0	36	21896.96		A	5
Driving Range 3'	Golfer's Eye	2.79	0	22	0.00		A	5
Driving Range 3'	Horizontal Illuminance	0.72	0	21	0.00		A	5
Driving Range 3'	North Illuminance	2.22	0	19	0.00		A	5
Driving Range 50'	Golfer's Eye	2.94	0	46	1489.19		A	5
Driving Range 50'	North Illuminance	3.07	0	132	122196.93		A	5
Driving Range 75'	Golfer's Eye	2.04	0	31	770.93		A	5
Driving Range 75'	North Illuminance	1.85	0	51	37769.01		A	5
Tee Box	Horizontal	13.6	0	22	0.00		A	5

From Hometown to Professional



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Madison, WI USA

Grid Summary	
Name	Tee Box
Size	570' x 845'
Spacing	10.0' x 10.0'
Height	3.0' above grade

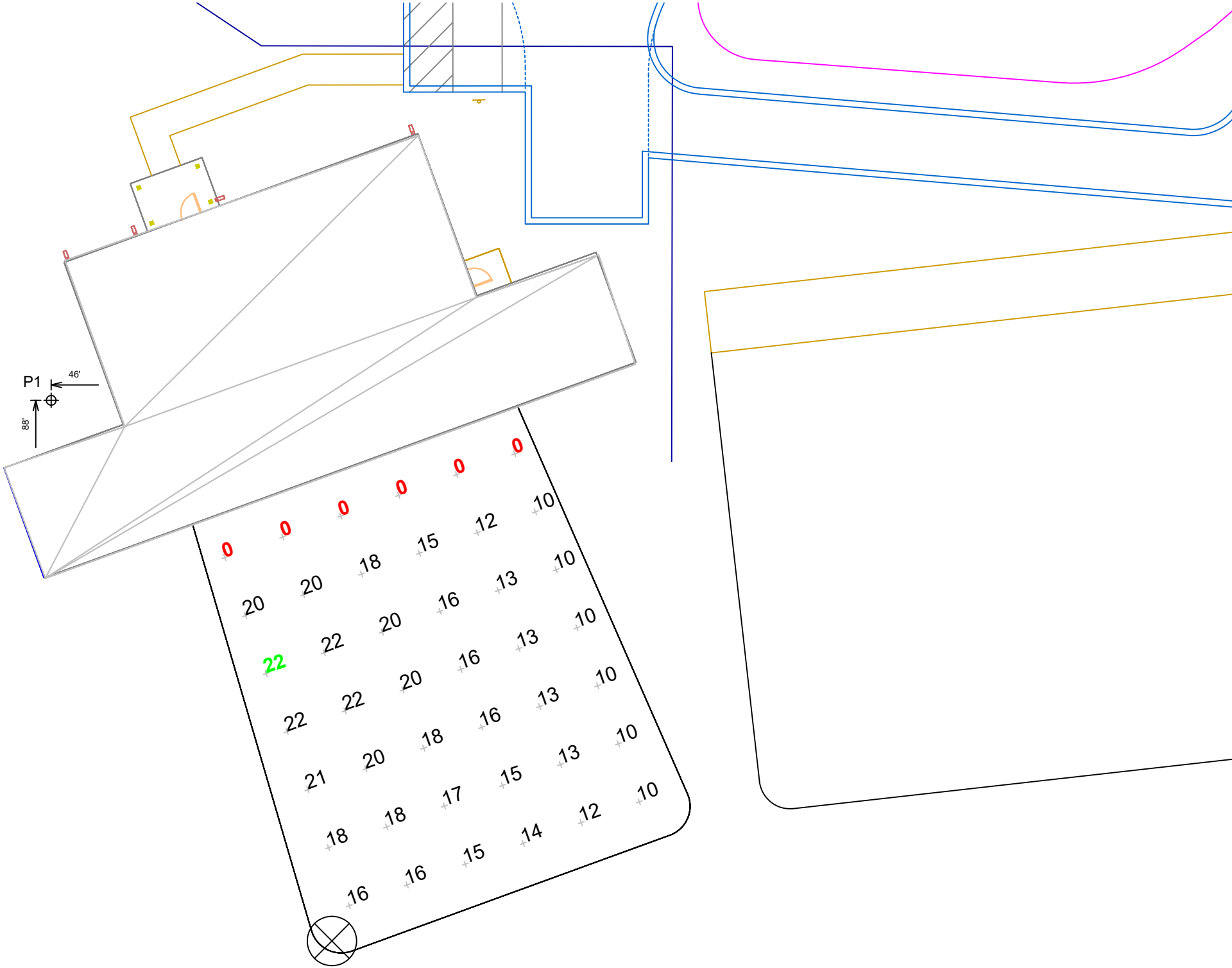
Illumination Summary	
	MAINTAINED HORIZONTAL FOOTCANDLES
	Entire Grid
Guaranteed Average	10
Scan Average	13.59
Maximum	22
Minimum	0
Avg/Min	-
Max/Min	-
UG (adjacent pts)	1.32
CU	0.08
No. of Points	42
LUMINAIRE INFORMATION	
Applied Circuits	A
No. of Luminaires	5
Total Load	7.09 kW

**Guaranteed Performance:** The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

**Field Measurements:** Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

**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 driver and structures located within 3 feet (1m) of design locations.



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TPC Wisconsin Driving Range

Madison, WI USA

Grid Summary	
Name	Driving Range 3'
Size	570' x 845'
Spacing	30.0' x 30.0'
Height	3.0' above grade

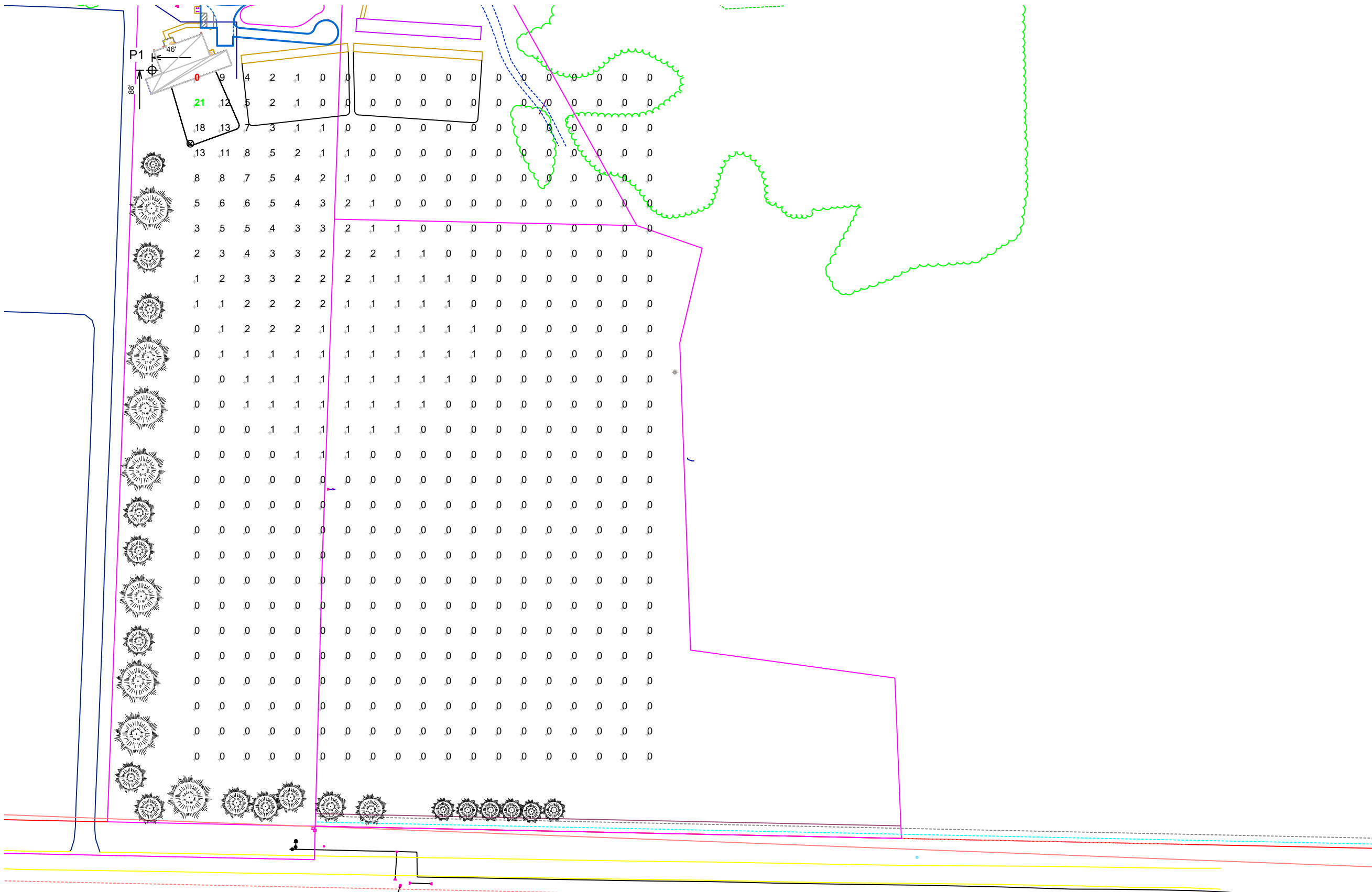
Illumination Summary	
MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Scan Average	0.72
Maximum	21
Minimum	0
Avg/Min	-
Max/Min	-
UG (adjacent pts)	2.52
CU	0.48
No. of Points	532
LUMINAIRE INFORMATION	
Applied Circuits	A
No. of Luminaires	5
Total Load	7.09 kW

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Madison, WI USA

Grid Summary	
Name	Driving Range 3'
Size	570' x 845'
Spacing	30.0' x 30.0'
Height	3.0' above grade

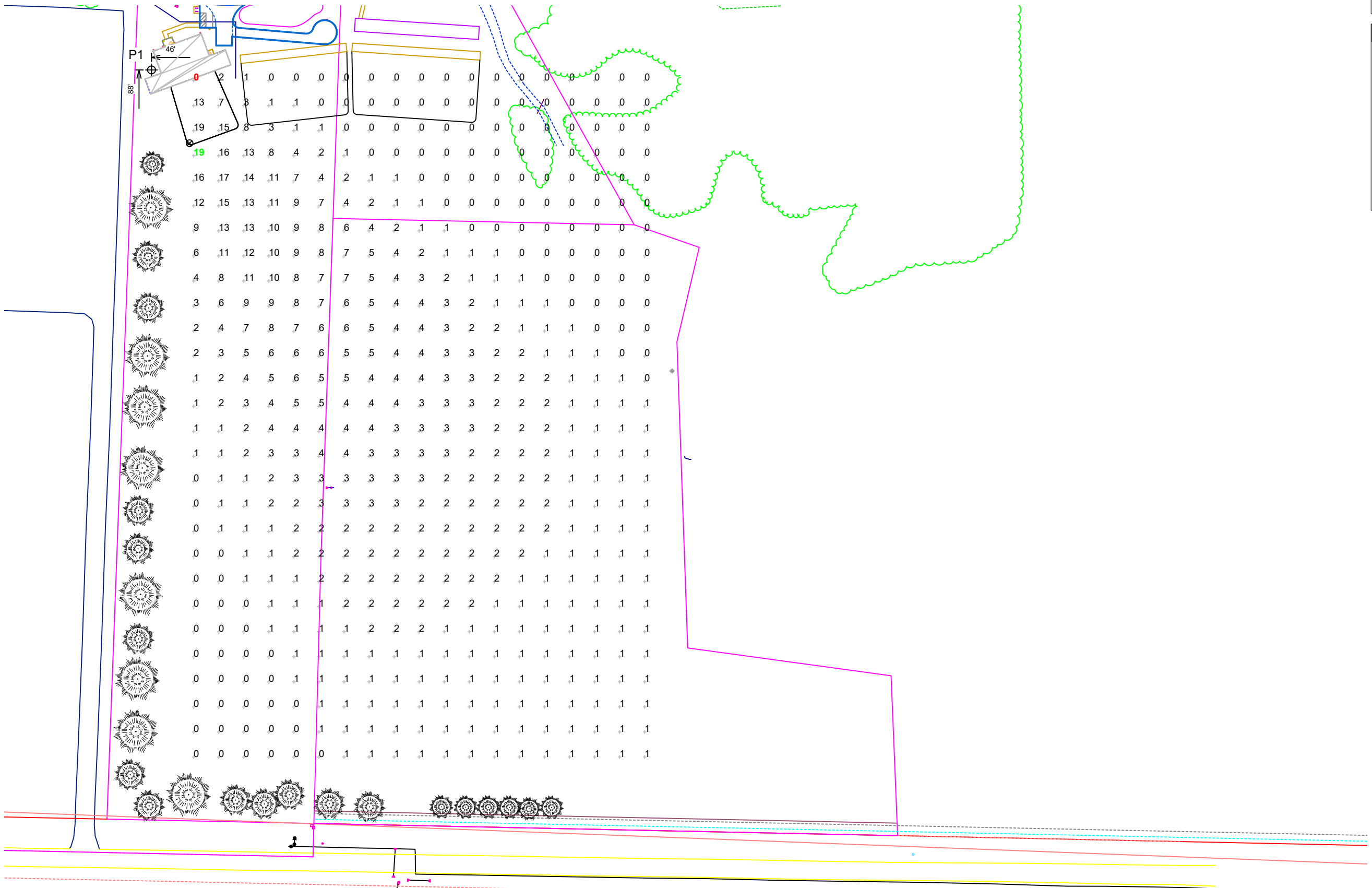
Illumination Summary	
MAINTAINED VERTICAL FOOTCANDLES: 0" TIL	
Entire Grid	
Scan Average	2.22
Maximum	19
Minimum	0
Avg/Min	-
Max/Min	-
UG (adjacent pts)	4.79
CU	0.48
No. of Points	532
LUMINAIRE INFORMATION	
Applied Circuits	A
No. of Luminaires	5
Total Load	7.09 kW


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SCALE IN FEET 1 : 120

0'

120'

240'

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0°

90°

180°

270°

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



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ILLUMINATION SUMMARY

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Grid Summary

Name Driving Range 3'  
Size 570' x 845'  
Spacing 30.0' x 30.0'  
Height 3.0' above grade

Illumination Summary

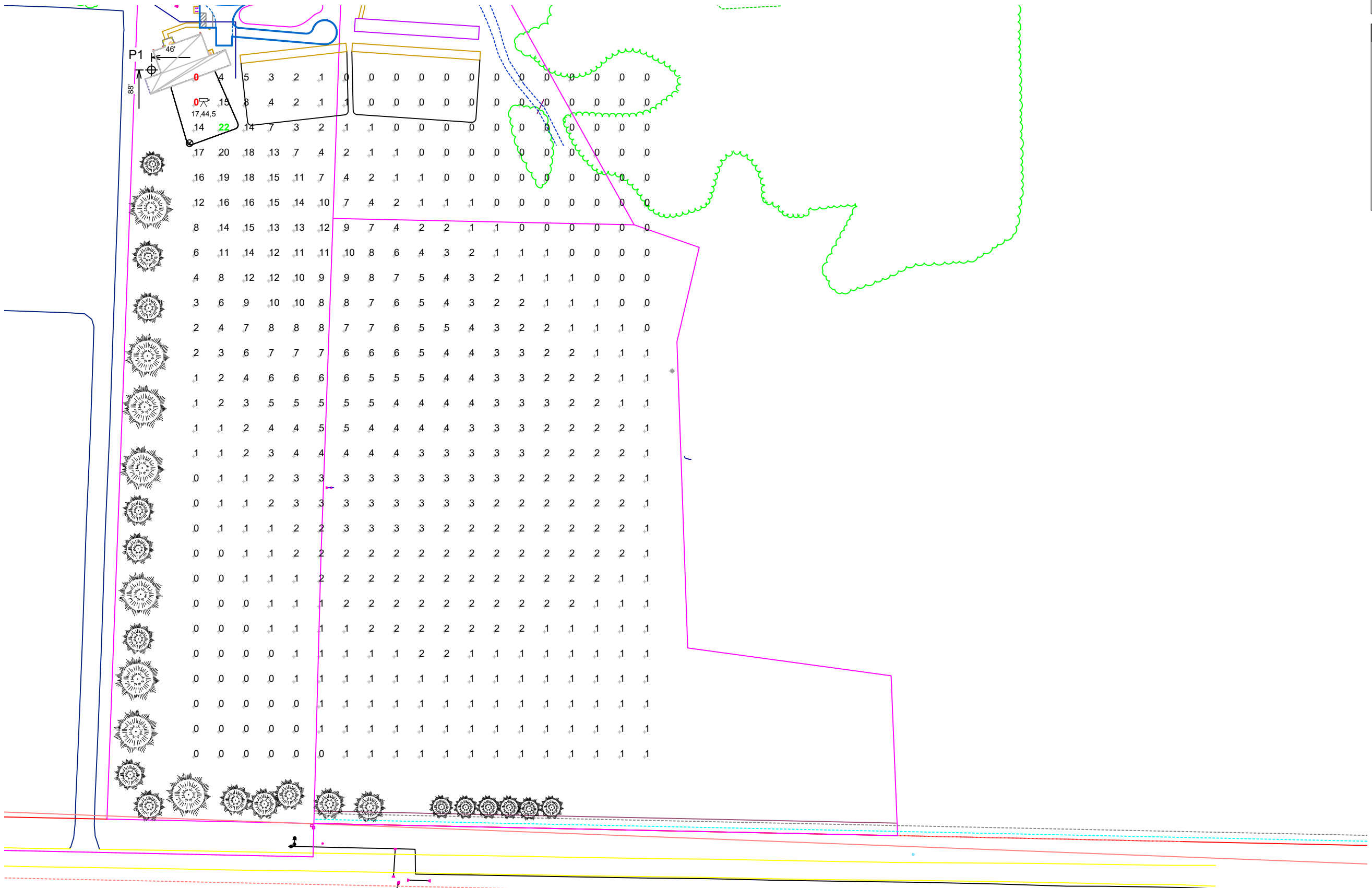
MAINTAINED TV FOOTCANDLES: Golfer's Eye	
	Entire Grid
Scan Average	2.79
Maximum	22
Minimum	0
Avg/Min	-
Max/Min	-
UG (adjacent pts)	3.43
CU	0.48
No. of Points	532
LUMINAIRE INFORMATION	
Applied Circuits	A
No. of Luminaires	5
Total Load	7.09 kW

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ILLUMINATION SUMMARY



TPC Wisconsin Driving Range

Madison, WI USA

Grid Summary	
Name	Driving Range 25'
Size	570' x 845'
Spacing	30.0' x 30.0'
Height	25.0' above grade

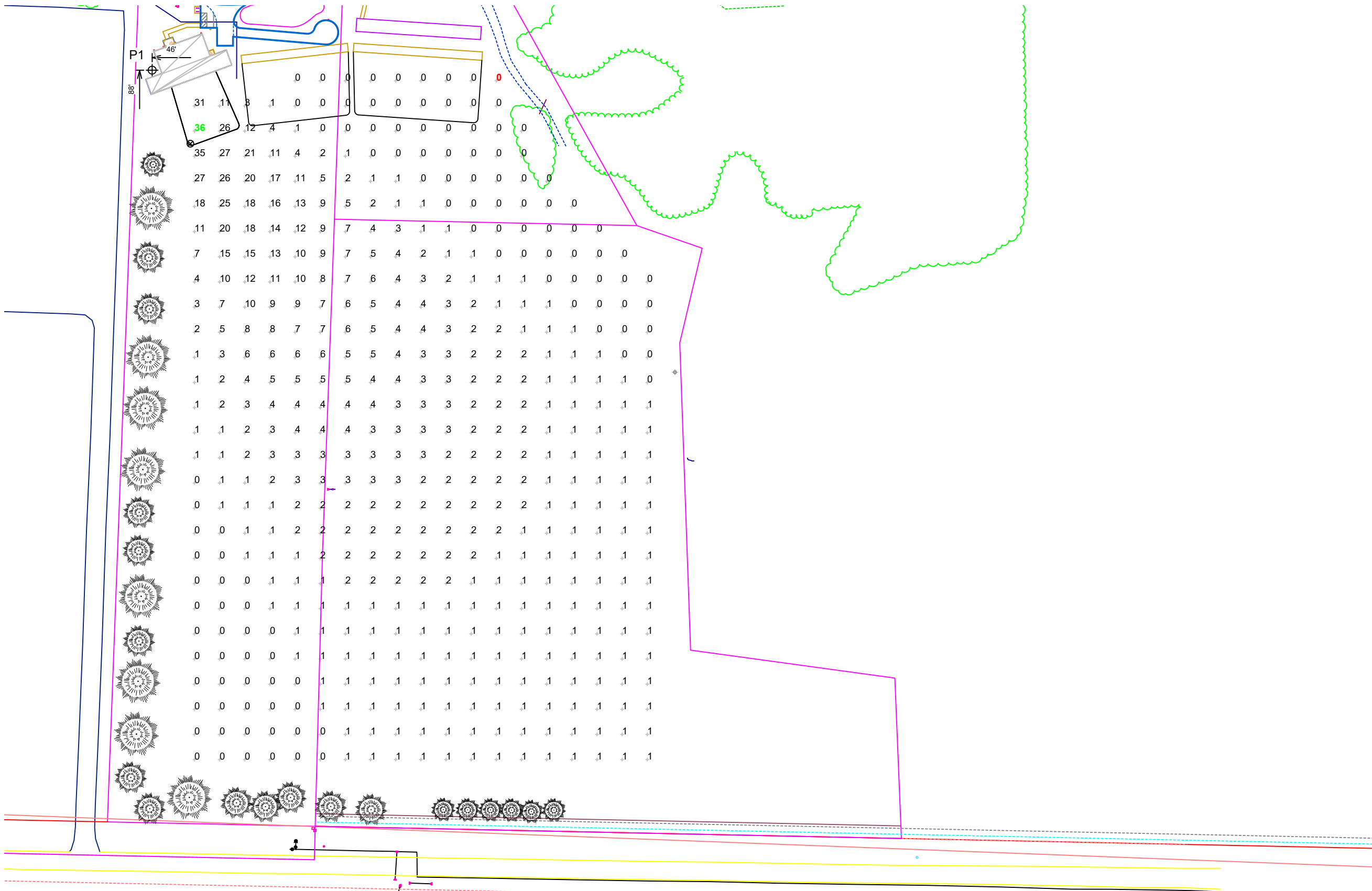
Illumination Summary	
MAINTAINED VERTICAL FOOTCANDLES: 0" TIL	
Entire Grid	
Scan Average	2.69
Maximum	36
Minimum	0
Avg/Min	1615.42
Max/Min	21896.96
UG (adjacent pts)	4.81
CU	0.41
No. of Points	496
LUMINAIRE INFORMATION	
Applied Circuits	A
No. of Luminaires	5
Total Load	7.09 kW


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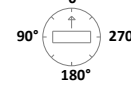




SCALE IN FEET 1 : 120

0' 120' 240'

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METER ORIENTATION

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



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ILLUMINATION SUMMARY

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Grid Summary

Name Driving Range 25'  
Size 570' x 845'  
Spacing 30.0' x 30.0'  
Height 25.0' above grade

Illumination Summary

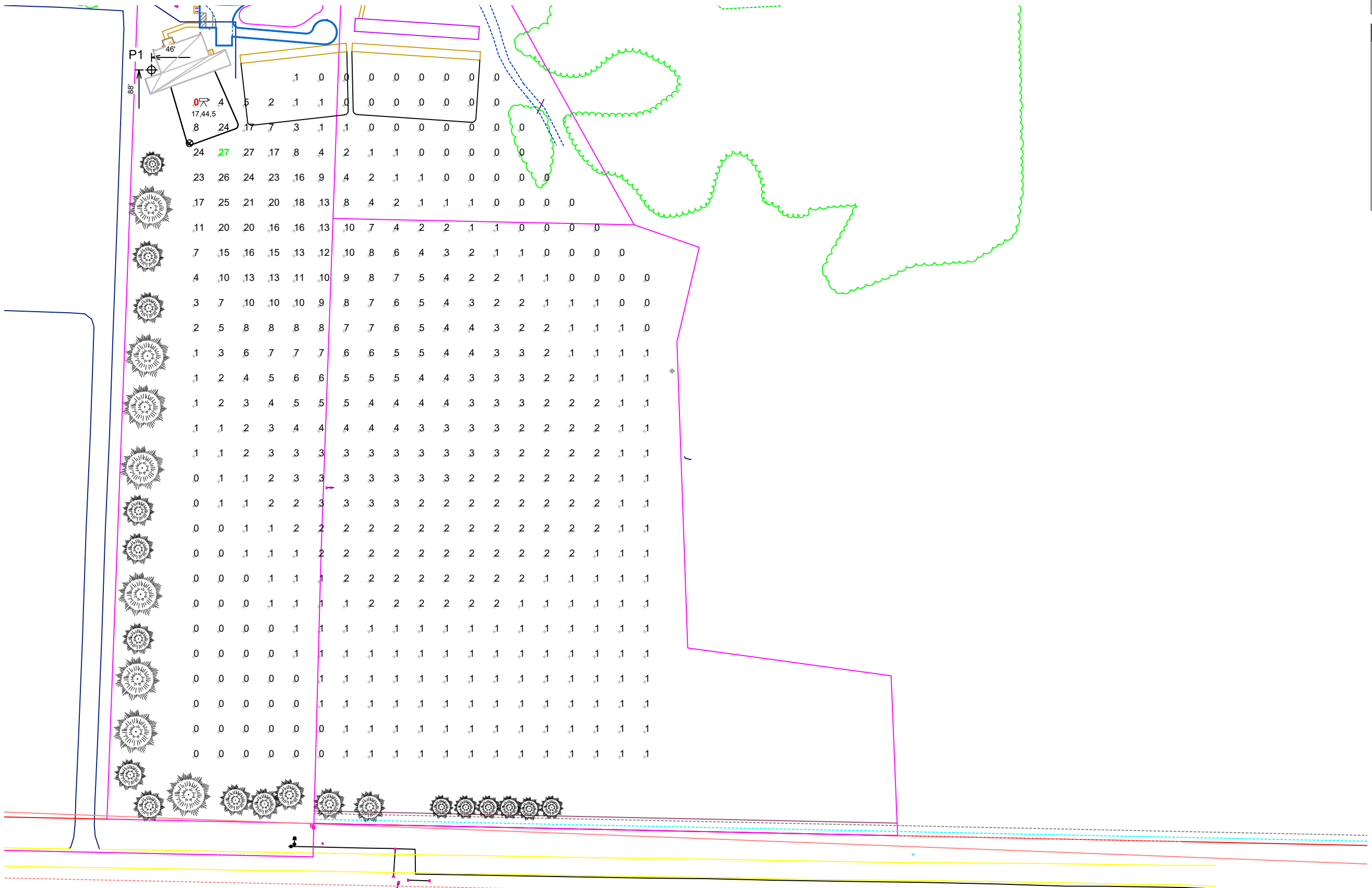
MAINTAINED TV FOOTCANDLES: Golfer's Eye	
	Entire Grid
Scan Average	3.07
Maximum	27
Minimum	0
Avg/Min	-
Max/Min	-
UG (adjacent pts)	5.41
CU	0.41
No. of Points	496
LUMINAIRE INFORMATION	
Applied Circuits	A
No. of Luminaires	5
Total Load	7.09 kW

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TPC Wisconsin Driving Range

Madison, WI USA

Grid Summary

Name Driving Range 50'  
Size 570' x 845'  
Spacing 30.0' x 30.0'  
Height 50.0' above grade

Illumination Summary

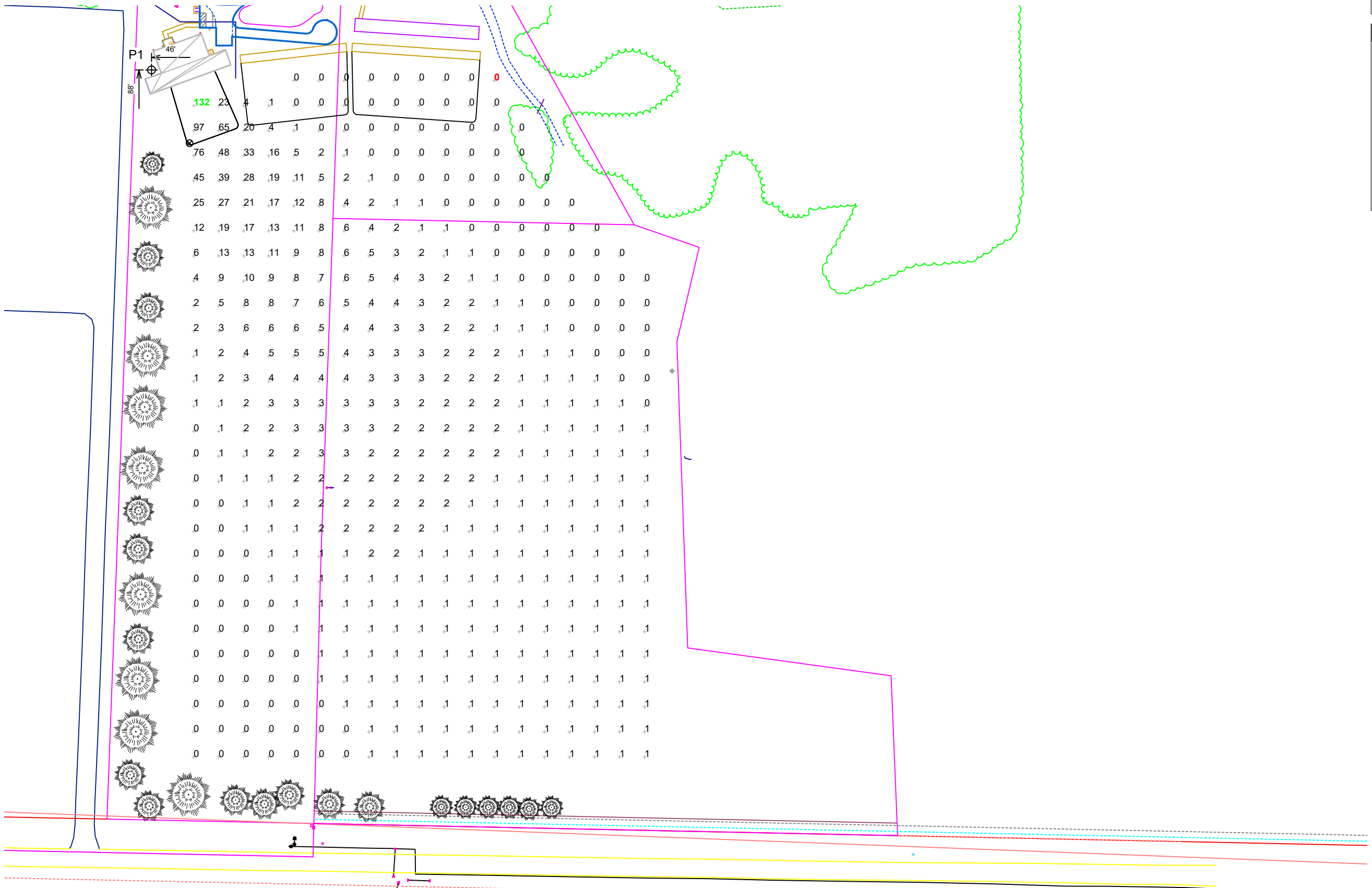
MAINTAINED VERTICAL FOOTCANDLES: 0" TILT	
	Entire Grid
Scan Average	3.07
Maximum	132
Minimum	0
Avg/Min	2849.96
Max/Min	122196.93
UG (adjacent pts)	5.95
CU	0.26
No. of Points	496
LUMINAIRE INFORMATION	
Applied Circuits	A
No. of Luminaires	5
Total Load	7.09 kW


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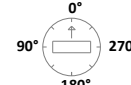
SCALE IN FEET 1 : 120

0'

120'

240'

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METER ORIENTATION

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ILLUMINATION SUMMARY



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Grid Summary

Name Driving Range 50'  
Size 570' x 845'  
Spacing 30.0' x 30.0'  
Height 50.0' above grade

Illumination Summary

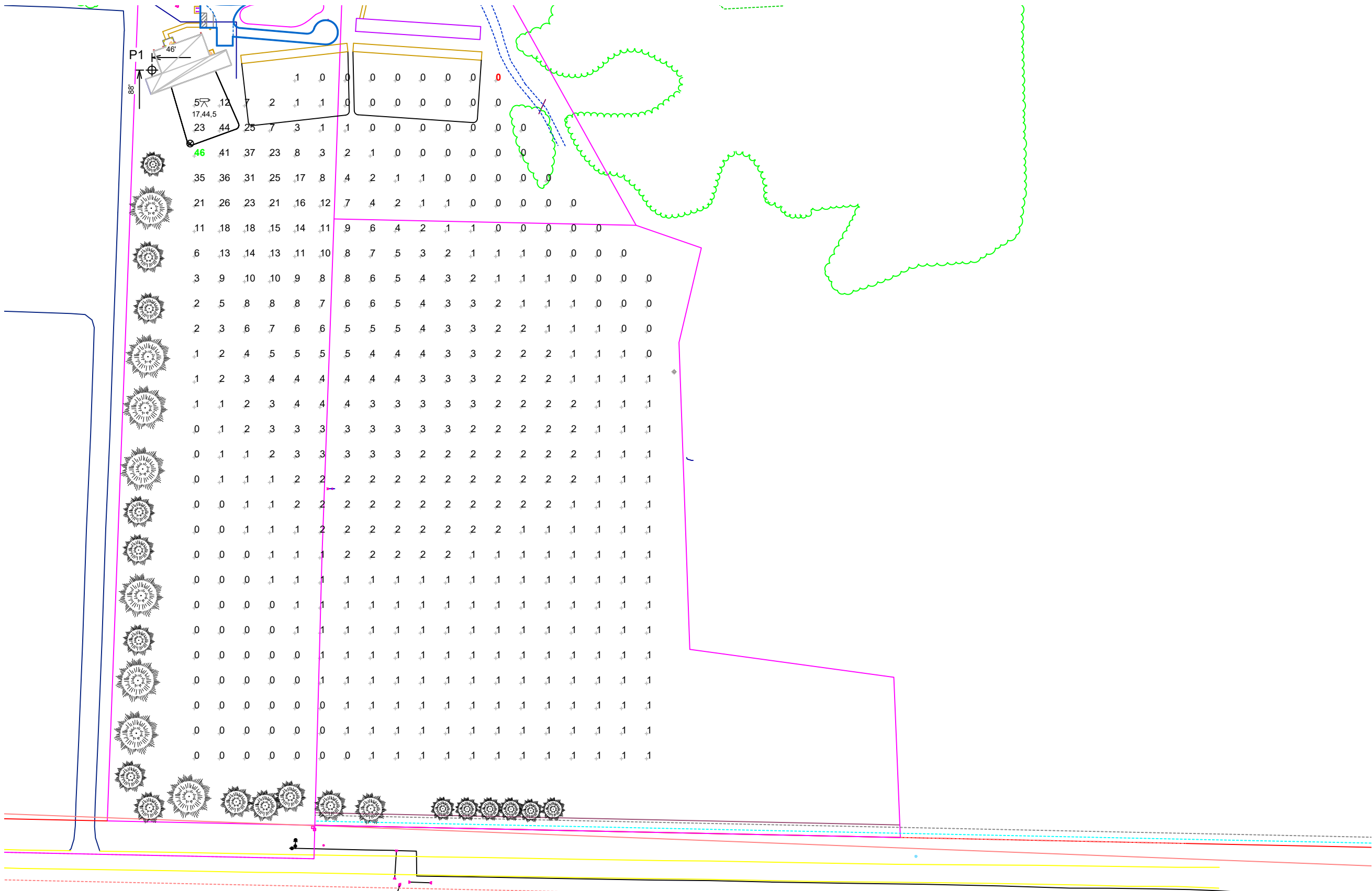
MAINTAINED TV FOOTCANDLES: Golfer's Eye	
	Entire Grid
Scan Average	2.94
Maximum	46
Minimum	0
Avg/Min	95.42
Max/Min	1489.19
UG (adjacent pts)	4.32
CU	0.26
No. of Points	496
LUMINAIRE INFORMATION	
Applied Circuits	A
No. of Luminaires	5
Total Load	7.09 kW

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TPC Wisconsin Driving Range

Madison, WI USA

Grid Summary

Name Driving Range 75'  
Size 570' x 845'  
Spacing 30.0' x 30.0'  
Height 75.0' above grade

Illumination Summary

MAINTAINED VERTICAL FOOTCANDLES: 0" TILT	
	Entire Grid
Scan Average	1.85
Maximum	51
Minimum	0
Avg/Min	1372.74
Max/Min	37769.01
UG (adjacent pts)	8.00
No. of Points	496
LUMINAIRE INFORMATION	
Applied Circuits	A
No. of Luminaires	5
Total Load	7.09 kW

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TPC Wisconsin Driving Range

Madison, WI USA

Grid Summary

Name Driving Range 75'  
Size 570' x 845'  
Spacing 30.0' x 30.0'  
Height 75.0' above grade

Illumination Summary

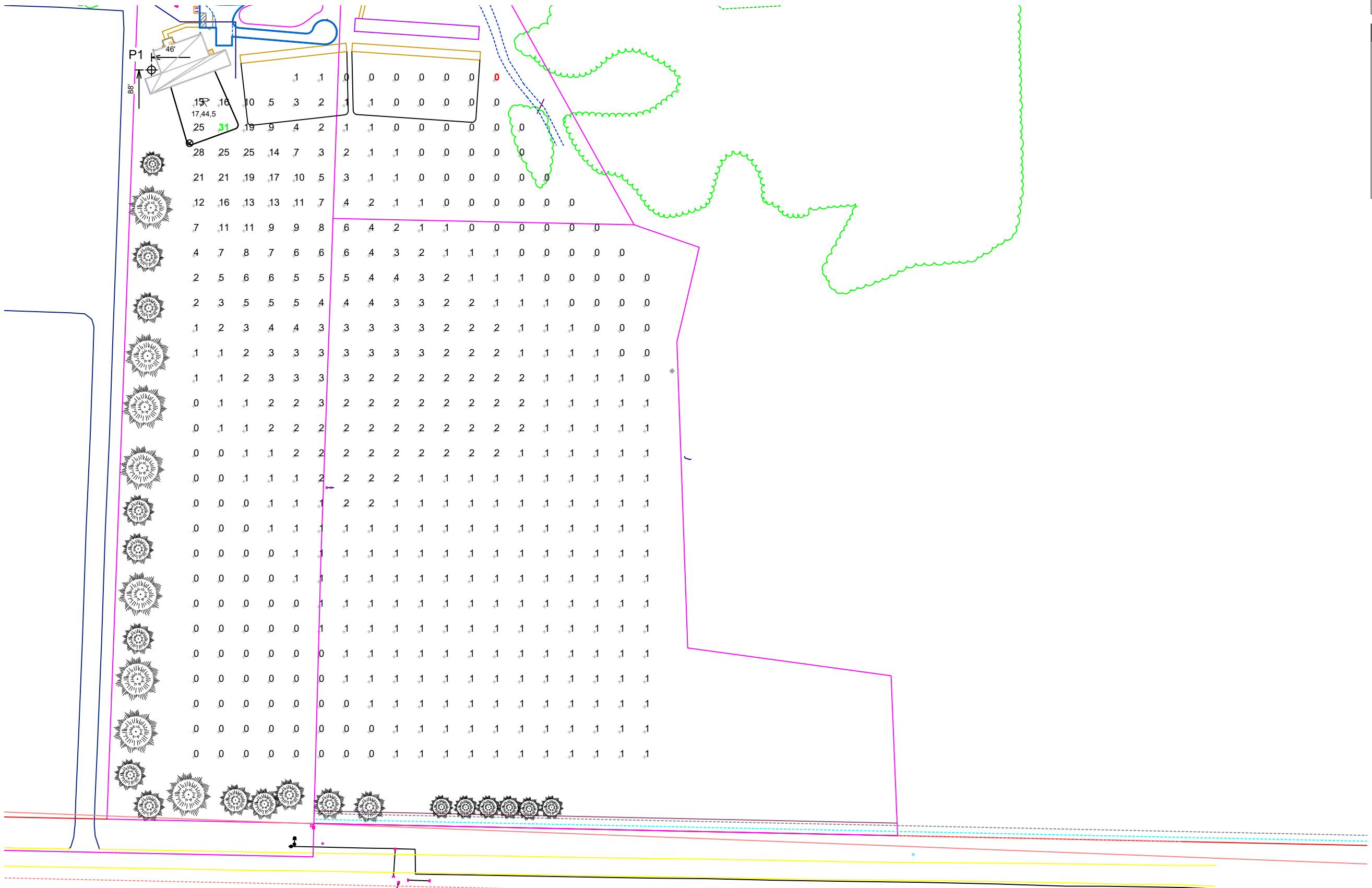
MAINTAINED TV FOOTCANDLES: Golfer's Eye	
	Entire Grid
Scan Average	2.04
Maximum	31
Minimum	0
Avg/Min	50.40
Max/Min	770.93
UG (adjacent pts)	2.56
No. of Points	496
LUMINAIRE INFORMATION	
Applied Circuits	A
No. of Luminaires	5
Total Load	7.09 kW

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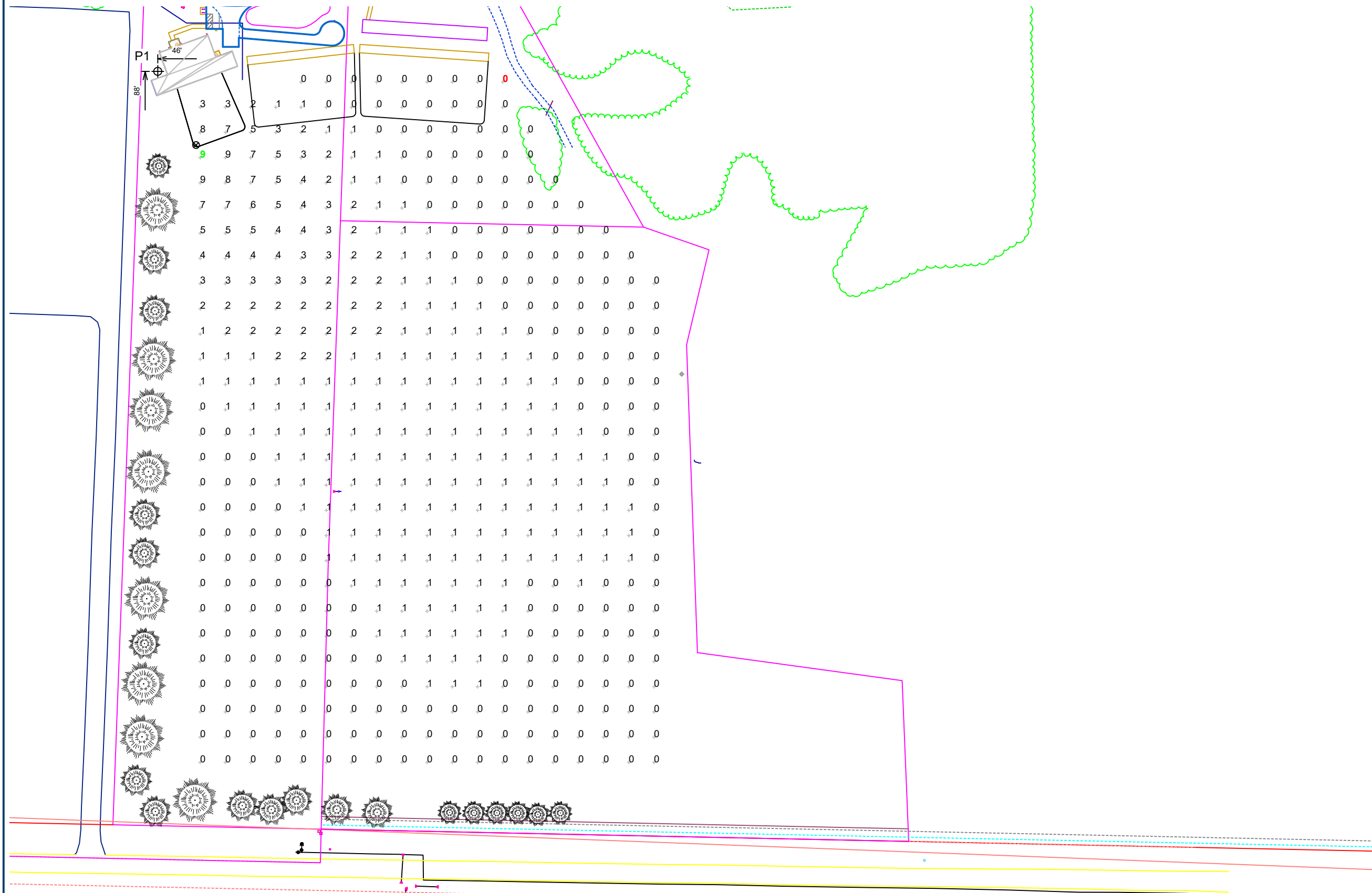
**Madison, WI USA**

<b>Name</b>	<b>Driving Range 100'</b>
<b>Size</b>	570' x 845'
<b>Spacing</b>	30.0' x 30.0'
<b>Height</b>	100.0' above grade

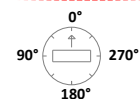
**MAINTAINED VERTICAL FOOTCANDLES: 0° Tilt**

	Entire Grid
<b>Scan Average</b>	<b>0.91</b>
Maximum	9
Minimum	0
Avg/Min	343.83
<b>Max/Min</b>	<b>3344.58</b>
UG (adjacent pts)	7.99
No. of Points	496
<b>LUMINAIRE INFORMATION</b>	
Applied Circuits	A
<b>No. of Luminaires</b>	<b>5</b>
Total Load	7.09 kW

**Installation Requirements:** Results assume  $\pm 3\%$  nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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Pole location(s)  $\oplus$  dimensions are relative to 0,0 reference point(s)  $\otimes$



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## ILLUMINATION SUMMARY

TPC Wisconsin Driving Range

Madison, WI USA

Grid Summary

Name Driving Range 100'  
Size 570' x 845'  
Spacing 30.0' x 30.0'  
Height 100.0' above grade

Illumination Summary

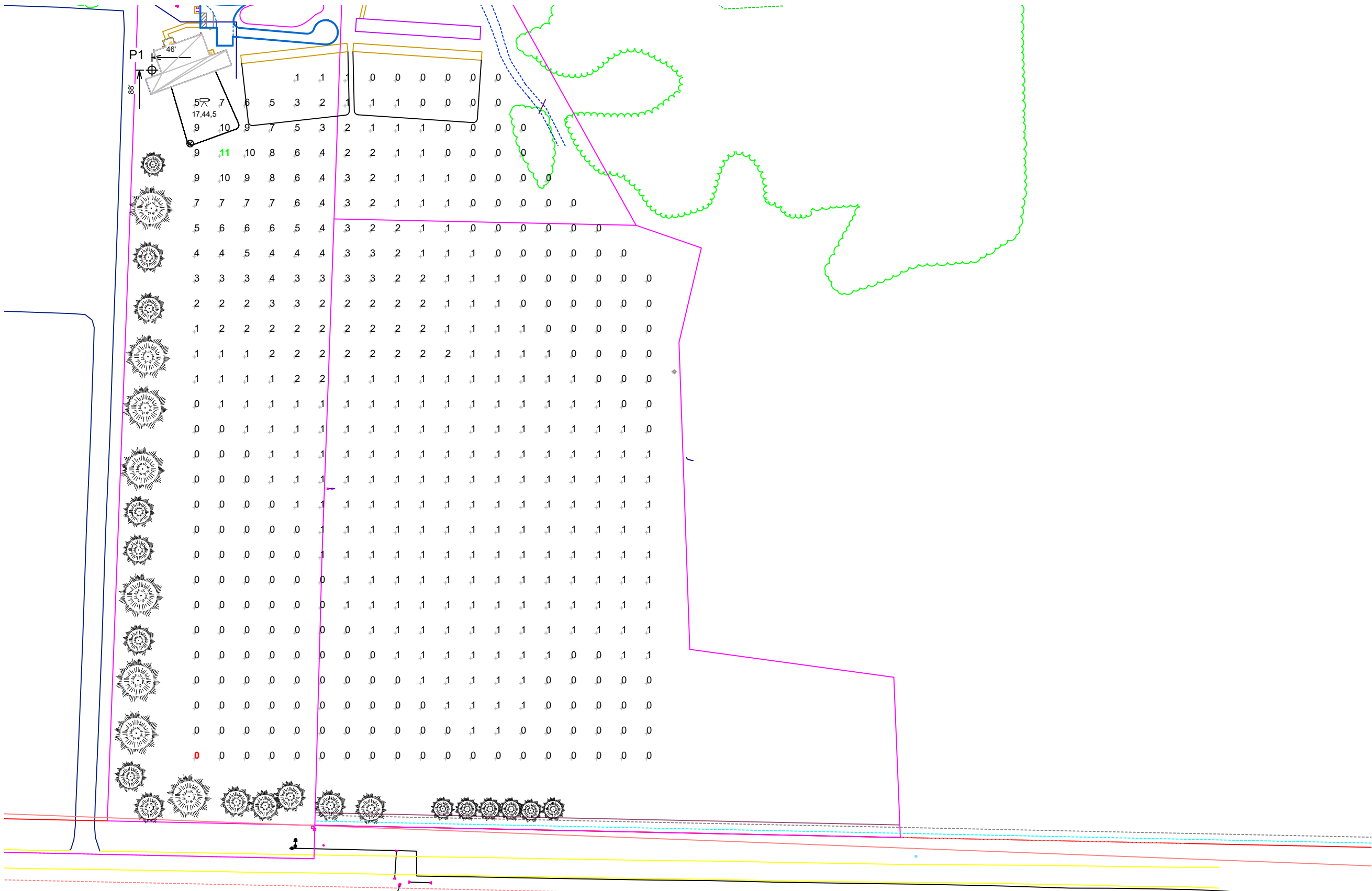
MAINTAINED TV FOOTCANDLES: Golfer's Eye	
	Entire Grid
Scan Average	1.22
Maximum	11
Minimum	0
Avg/Min	29.94
Max/Min	262.38
UG (adjacent pts)	2.51
No. of Points	496
LUMINAIRE INFORMATION	
Applied Circuits	A
No. of Luminaires	5
Total Load	7.09 kW

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TPC Wisconsin Driving Range

Madison, WI USA

Grid Summary

Name	Road Spill_Horizontal
Spacing	30.0' x 10.0'
Height	3.0' above grade

Illumination Summary

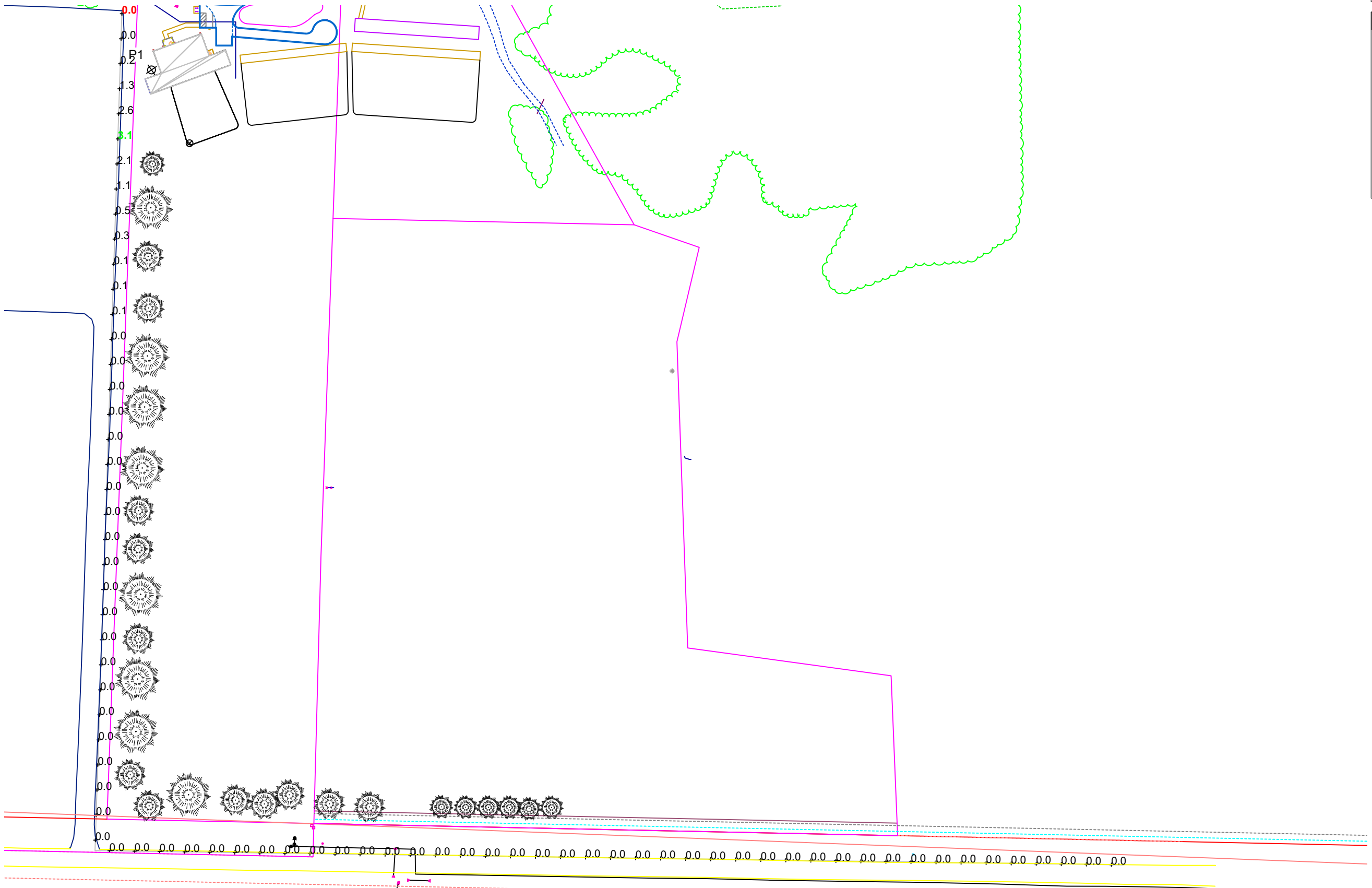
MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average	0.17
Maximum	3
Minimum	0
Avg/Min	-
Max/Min	-
UG (adjacent pts)	0.00
CU	0.01
No. of Points	75
LUMINAIRE INFORMATION	
Applied Circuits	A
No. of Luminaires	5
Total Load	7.09 kW

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TPC Wisconsin Driving Range

Madison, WI USA

Grid Summary	
Name	Road Spill_Vertical
Spacing	30.0' x 10.0'
Height	5.0' above grade

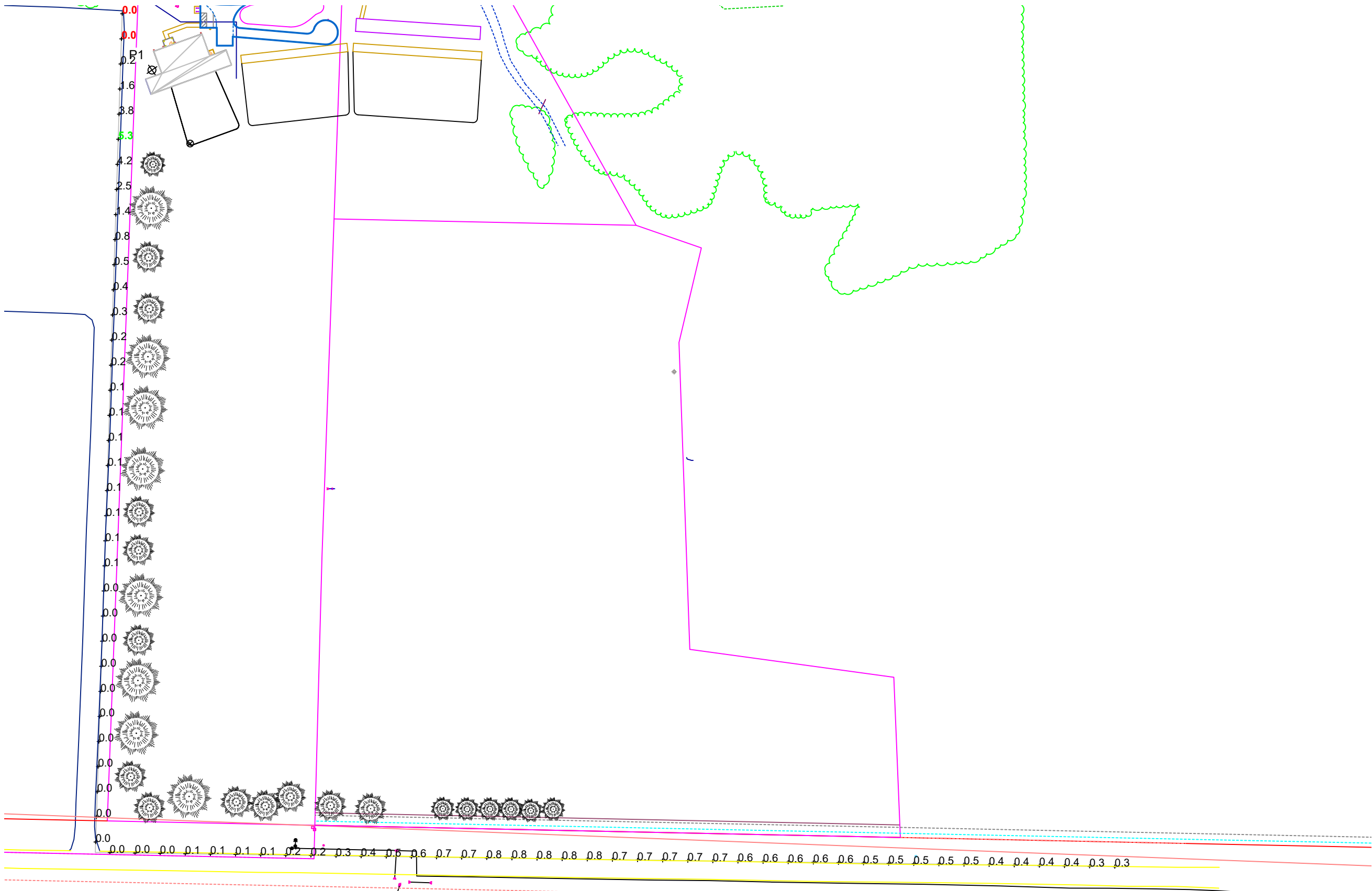
Illumination Summary	
MAINTAINED MAX VERTICAL FOOTCANDLES	
Entire Grid	
Scan Average	0.55
Maximum	5
Minimum	0
Avg/Min	-
Max/Min	-
UG (adjacent pts)	0.00
CU	0.01
No. of Points	75
LUMINAIRE INFORMATION	
Applied Circuits	A
No. of Luminaires	5
Total Load	7.09 kW

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ILLUMINATION SUMMARY

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Madison, WI USA

Equipment Layout

**INCLUDES:**  
· Driving Range

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

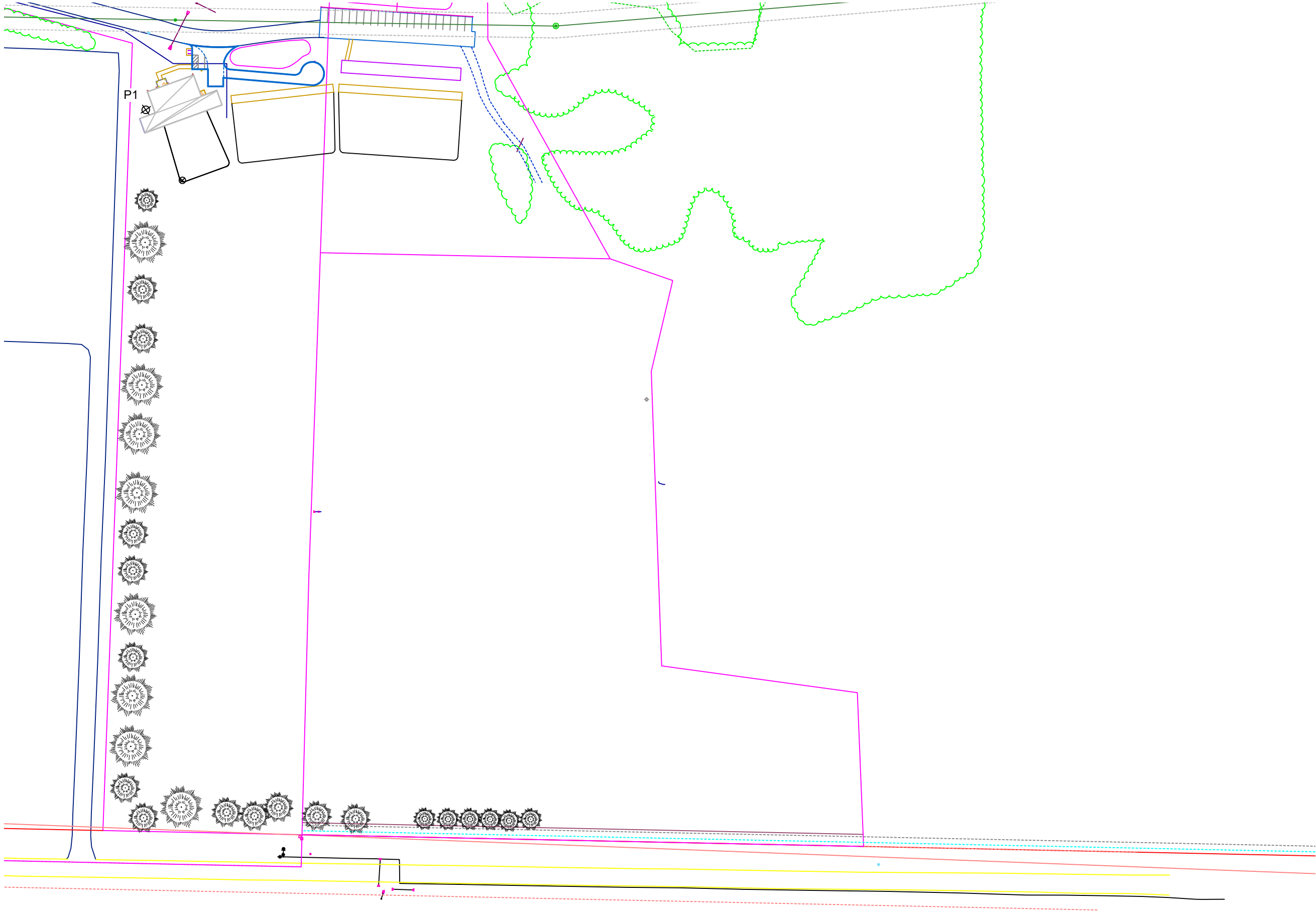
**Installation Requirements:** Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

Equipment List For Areas Shown

QTY	Pole			Luminaires		
	LOCATION	SIZE	GRADE ELEVATION	ABOVE GRADE LEVEL	LUMINAIRE TYPE	QTY/POLE
1	P1	70'	-	71.0'	TLC-LED-1500	3
				28'	TLC-BT-1500	2
1	Totals					5

Single Luminaire Amperage Draw Chart

Driver 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							
TLC-BT-1500	8.5	8.1	7.4	6.4	5.1	4.7	3.7
TLC-LED-1500	8.4	7.9	7.3	6.3	5.0	4.6	3.6



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