

**CORAL MOUNTAIN RESORT**  
DRAFT EIR  
SCH# 2021020310

TECHNICAL APPENDICES

Lighting Analysis  
Appendix B

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June 2021



## REQUEST FOR INFORMATION

Project:	Coral Mtn.	RFI Number:	104-004
Date RFI Submitted:	9/14/2020	Submitted By:	Garrett Simon
Date Response Required:	<b>9/21/2020</b>	Submitted To:	Chris Phebus
Date Responded:	9/18/2020		
Plan Sheet No		Detail:	
Attachments <small>check one</small> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Datasheets <input type="checkbox"/> Drawings <input checked="" type="checkbox"/> Calculations	
<b>REQUEST:</b>			
<p>As received in an email from Garrett on September 14:</p> <p>Can we circle up to discuss expanding this analysis to get a larger area showing lighting levels beyond the basin and information on glare? Also would like to talk about potential of lowering pole height.</p> <p>Further clarification from Garrett on September 15:</p> <p>The initial priority is expanding the area of the current study to show light level getting to 1 FC within out property. Second step would be to see what optimization can be done to further mitigate impact from height of poles in residential area.</p>			
<b>RESPONSE:</b>			
<b>Light level measurement:</b>			
<p>Please see attached a revised light study that includes areas outside of the basin on pages 7, 8 and 12. These diagrams include assumed property lines 150' from the track side basin edge and 95' minimum from the wave side basin.</p> <p>Page 7 is a grid measuring horizontal footcandles (light incident on a horizontal surface 3' above grade).</p> <p>Page 8 has a measurement grid measuring vertical footcandles (light incident on a vertical surface facing the basin, 3' above grade).</p> <p>Please note that a black "0" on these grids represents a rounded value of 0 FC (eg, .5FC or below), and a red "0" represents no perceived light in the analysis.</p>			



Page 12 is a heat map visualization showing glare from the fixtures in candela. This shows the maximum candela an observer would see when facing the brightest light source from any direction.

As can be seen on these pages, incident light levels drop below 1 FC within 50' of the basin on all sides, and in many cases within a few feet. This is a feature of the product we have specified that allows for a unique level of glare control within the lighting project. Glare drops below 500 candela within approximately 150' of the basin trackside and 95' of the basin waveside. 500 candela is a minimum glare value in a normal glare study, approximately equivalent to the light emitted from a 100w incandescent bulb.

If there are any specific concerns for glare or incident light in a specific location on the site, we can produce additional calculations to help understand and address these concerns. More intensive studies requiring significant work or redesign may be an additional service requiring a fee proposal from WaveCo.

### **Pole Height:**

Adjusting pole height is a complicated exercise that has multiple impacts to the lighting design. Some initial information is provided below but a dedicated design study would be necessary to fully determine what is possible.

The surf lighting product developed by WaveCo involves a lighting angle developed with professional surfers in a live test in Lemoore. This angle is a sensitive factor that keeps wave features visible at night while minimizing reflected glare from the water. It may be possible to work with a shorter angle, but this may require our team to reevaluate the results of previous tests and/or conduct additional testing to ensure that glare and light quality is maintained for surfers.

Reducing pole height while keeping our existing lighting angles would require moving the light poles to locations within the basin. This would need a significant design exercise to address structural and safety concerns. This exercise may also require our team to reevaluate the results of previous tests and/or conduct additional testing to ensure that glare and light quality was maintained for surfers.

Additionally, shorter poles may require additional poles and fixtures to accommodate the reduced "reach" of fixtures at a lower height, as maximum pole spacing is related to pole height.

Fully exploring lighting product alteration would be an additional service requiring a fee proposal from WaveCo; in addition, project costs are likely to increase if additional poles and fixtures are required or if the poles are moved within the basin.



Signature:

9/17/2020

By: Ben Regnier

X Ben Regnier

Date: 9/16/2020

Digital Signature

Signed by: 5610ae8a-59e7-4e94-8968-9a07ae927c6c

After reviewing the response, does the vendor anticipate:

That a change order will be required? Yes No **If redesign required**

That there will be an increase in the cost of the project? Yes No **If redesign required**

# Surf Ranch Coral Mountain

La Quinta, CA

## Lighting System

Pole / Fixture Summary						
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
P1-P7	80'	80'	4	TLC-LED-1200	4.68 kW	A
		80'	2	TLC-LED-600	1.16 kW	A
P8-P9, P16-P17	80'	80'	2	TLC-LED-600	1.16 kW	A
P10, P12-P13, P15	80'	80'	3	TLC-LED-600	1.74 kW	A
P11, P14	80'	80'	4	TLC-LED-600	2.32 kW	A
<b>f7</b>			<b>70</b>		<b>57.12 kW</b>	

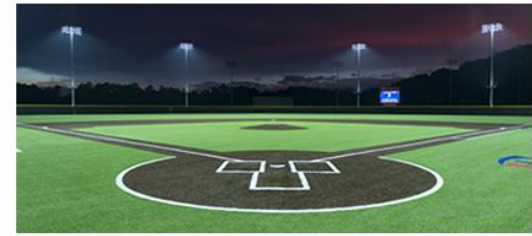
Circuit Summary			
Circuit	Description	Load	Fixture Qty
A	Surf Area	57.12 kW	70

Fixture Type Summary							
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-1200	LED 5700K - 75 CRI	1170W	136,000	>120,000	>120,000	>120,000	28
TLC-LED-600	LED 5700K - 75 CRI	580W	65,600	>120,000	>120,000	>120,000	42

## Light Level Summary

Calculation Grid Summary								
Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Blanket Grid	Horizontal	1.13	0	24.2	0.00		A	70
Blanket Grid	Max Vert Illuminance (by Light Bank)	1.61	0	35	0.00		A	70
Entire Pool	Horizontal	8.70	0.24	24.9	103.40	36.25	A	70
North Property Line	Max Candela (by Fixture)	383	0.86	912	1061.83	445.62	A	70
South Property Line	Max Candela (by Fixture)	93.4	0	462	0.00		A	70
Surf Berm & Pools	Horizontal	4.42	0.24	10.1	41.69	18.42	A	70
Surf Track Extents	Horizontal	9.70	3.12	19.9	6.39	3.11	A	70
Surf Track Vertical From Berm Area	Arbitrary Illuminance	1.36	0.30	3.91	13.11	4.53	A	70
Surf Track	Horizontal	16.9	10	21.9	2.18	1.68	A	70

## From Hometown to Professional



EQUIPMENT LIST FOR AREAS SHOWN									
QTY	LOCATION	Pole		Luminaires					
		SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
7	P1-P7	80'	-	80'	TLC-LED-1200	2	2	0	
4	P10 P12-P13 P15	80'	-	80'	TLC-LED-600	3	3	0	
2	P11, P14	80'	-	80'	TLC-LED-600	4	4	0	
4	P16-P17 P8-P9	80'	-	80'	TLC-LED-600	2	2	0	
17	TOTALS						70	70	0

**Surf Ranch Coral Mountain**  
La Quinta, CA

**GRID SUMMARY**

Name: Entire Pool  
Size: 0' x 0'  
Spacing: 20.0' x 20.0'  
Height: 3.0' above grade

**ILLUMINATION SUMMARY**

MAINTAINED HORIZONTAL FOOTCANDLES

Entire Grid	
Scan Average:	8.70
Maximum:	24.93
Minimum:	0.24
Avg / Min:	36.11
Max / Min:	103.40
UG (adjacent pts):	6.06
CU:	0.96
No. of Points:	1815

LUMINAIRE INFORMATION

Color / CRI: 5700K - 75 CRI  
Luminaire Output: 136,000 / 65,600 lumens  
No. of Luminaires: 70  
Total Load: 57.12 kW

Luminaire Type	Lumen Maintenance		
	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1200	>120,000	>120,000	>120,000
TLC-LED-600	>120,000	>120,000	>120,000

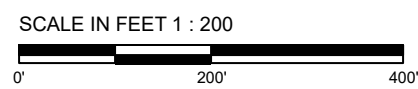
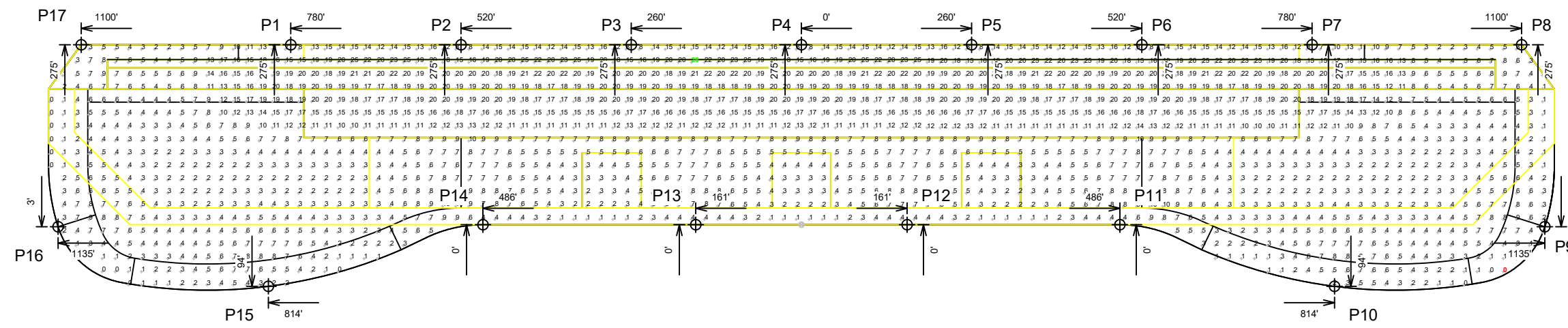
Reported per TM-21-11. See luminaire datasheet for details.

**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.



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



EQUIPMENT LIST FOR AREAS SHOWN								
QTY	Pole		GRADE ELEVATION	MOUNTING HEIGHT	Luminaires		OTHER GRIDS	
	LOCATION	SIZE			LUMINAIRE TYPE	QTY / POLE		THIS GRID
7	P1-P7	80'	-	80'	TLC-LED-600	2	2	0
4	P10 P12-P13 P15	80'	-	80'	TLC-LED-600	3	3	0
2	P11, P14	80'	-	80'	TLC-LED-600	4	4	0
4	P16-P17 P8-P9	80'	-	80'	TLC-LED-600	2	2	0
17	TOTALS					70	70	0

## Surf Ranch Coral Mountain

La Quinta, CA

### GRID SUMMARY

Name: Surf Track  
 Size: 0' x 0'  
 Spacing: 20.0' x 20.0'  
 Height: 3.0' above grade

### ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

Entire Grid	
Scan Average:	16.89
Maximum:	21.86
Minimum:	10.03
Avg / Min:	1.68
Max / Min:	2.18
UG (adjacent pts):	1.47
CU:	0.39
No. of Points:	380

### LUMINAIRE INFORMATION

Color / CRI: 5700K - 75 CRI  
 Luminaire Output: 136,000 / 65,600 lumens  
 No. of Luminaires: 70  
 Total Load: 57.12 KW

Luminaire Type	Lumen Maintenance		
	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1200	>120,000	>120,000	>120,000
TLC-LED-600	>120,000	>120,000	>120,000

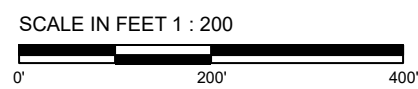
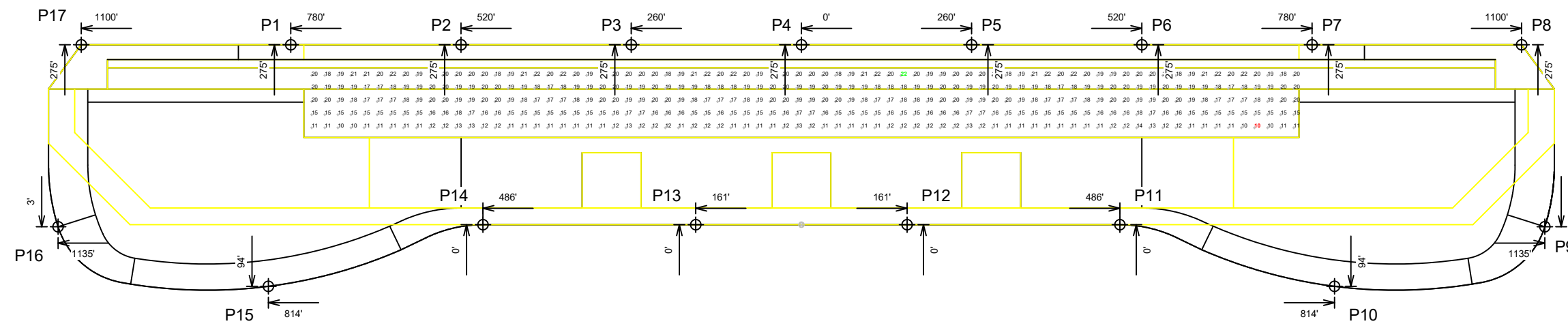
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Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗



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EQUIPMENT LIST FOR AREAS SHOWN									
QTY	LOCATION	Pole		Luminaires					
		SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
7	P1-P7	80'	-	80'	TLC-LED-600	2	2	0	
4	P10 P12-P13 P15	80'	-	80'	TLC-LED-600	3	3	0	
2	P11, P14	80'	-	80'	TLC-LED-600	4	4	0	
4	P16-P17 P8-P9	80'	-	80'	TLC-LED-600	2	2	0	
17	TOTALS						70	70	0

## Surf Ranch Coral Mountain

La Quinta, CA

### GRID SUMMARY

Name: Surf Track Extents  
 Size: 0' x 0'  
 Spacing: 20.0' x 20.0'  
 Height: 3.0' above grade

### ILLUMINATION SUMMARY

#### MAINTAINED HORIZONTAL FOOTCANDLES

Entire Grid	
Scan Average:	9.70
Maximum:	19.92
Minimum:	3.12
Avg / Min:	3.11
Max / Min:	6.39
UG (adjacent pts):	1.51
CU:	0.10
No. of Points:	165

#### LUMINAIRE INFORMATION

Color / CRI: 5700K - 75 CRI  
 Luminaire Output: 136,000 / 65,600 lumens  
 No. of Luminaires: 70  
 Total Load: 57.12 KW

Luminaire Type	Lumen Maintenance		
	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1200	>120,000	>120,000	>120,000
TLC-LED-600	>120,000	>120,000	>120,000

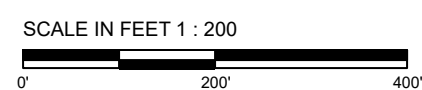
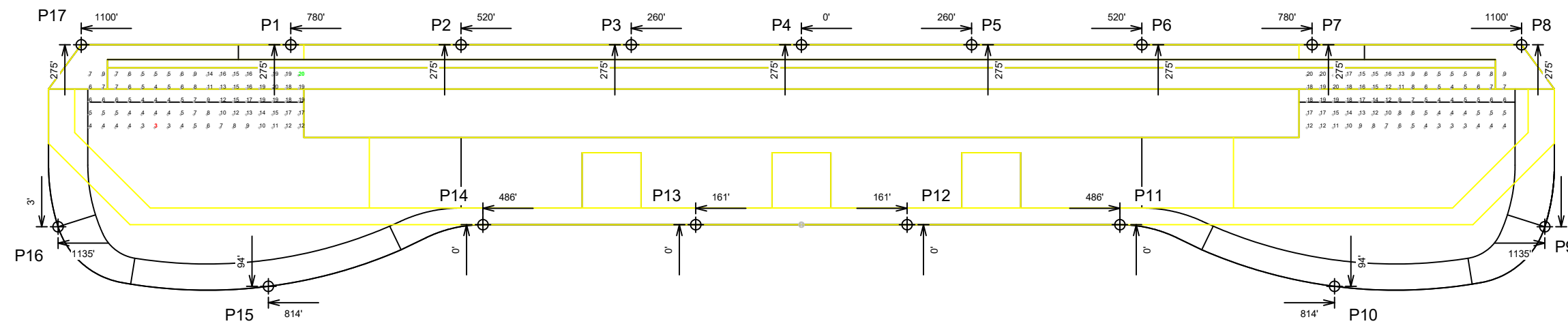
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EQUIPMENT LIST FOR AREAS SHOWN									
QTY	LOCATION	Pole		MOUNTING HEIGHT	LUMINAIRE TYPE	Luminaires			
		SIZE	GRADE ELEVATION			QTY / POLE	THIS GRID	OTHER GRIDS	
7	P1-P7	80'	-	80'	TLC-LED-600	2	2	0	
4	P10 P12-P13 P15	80'	-	80'	TLC-LED-600	3	3	0	
2	P11, P14	80'	-	80'	TLC-LED-600	4	4	0	
4	P16-P17 P8-P9	80'	-	80'	TLC-LED-600	2	2	0	
17	TOTALS					70	70	0	

## Surf Ranch Coral Mountain

La Quinta, CA

### GRID SUMMARY

Name: Surf Berm & Pools  
 Size: 0' x 0'  
 Spacing: 20.0' x 20.0'  
 Height: 3.0' above grade

### ILLUMINATION SUMMARY

#### MAINTAINED HORIZONTAL FOOTCANDLES

Entire Grid	
Scan Average:	4.42
Maximum:	10.05
Minimum:	0.24
Avg / Min:	18.32
Max / Min:	41.69
UG (adjacent pts):	6.06
CU:	0.27
No. of Points:	998

#### LUMINAIRE INFORMATION

Color / CRI: 5700K - 75 CRI  
 Luminaire Output: 136,000 / 65,600 lumens  
 No. of Luminaires: 70  
 Total Load: 57.12 KW

Luminaire Type	Lumen Maintenance		
	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1200	>120,000	>120,000	>120,000
TLC-LED-600	>120,000	>120,000	>120,000

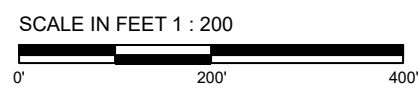
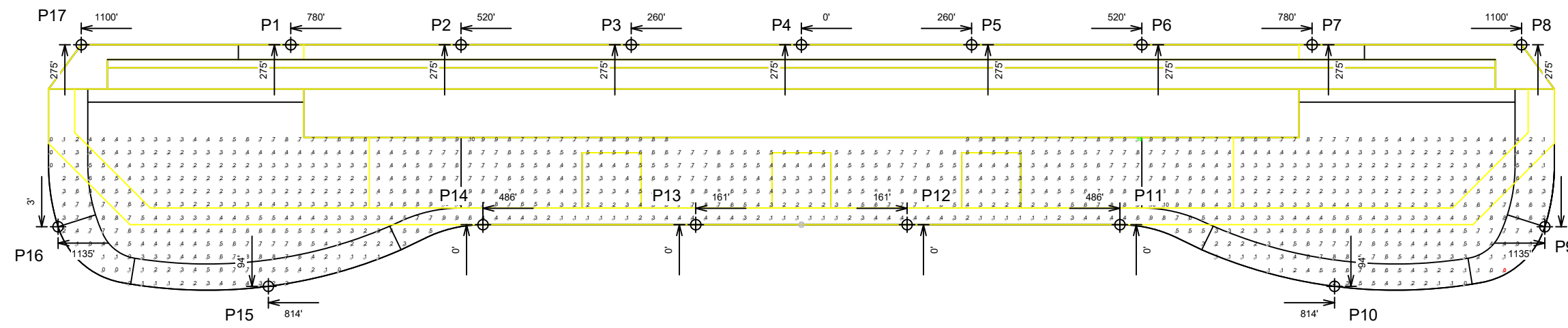
Reported per TM-21-11. See luminaire datasheet for details.

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EQUIPMENT LIST FOR AREAS SHOWN											
QTY	LOCATION	Pole		MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS			
		SIZE	GRADE ELEVATION								
7	P1-P7	80'	-	80'	TLC-LED-600	2	2	0			
4	P10 P12-P13 P15	80'	-	80'	TLC-LED-600	3	3	0			
2	P11, P14	80'	-	80'	TLC-LED-600	4	4	0			
4	P16-P17 P8-P9	80'	-	80'	TLC-LED-600	2	2	0			
17	TOTALS								70	70	0

## Surf Ranch Coral Mountain

La Quinta, CA

### GRID SUMMARY

Name: Surf Track Vertical From Berm Area  
 Size: 0' x 0'  
 Spacing: 20.0' x 20.0'  
 Height: 5.0' above grade

### ILLUMINATION SUMMARY

MAINTAINED VERTICAL FOOTCANDLES: 0° Tilt			
Entire Grid			
Scan Average:	1.36		
Maximum:	3.91		
Minimum:	0.30		
Avg / Min:	4.58		
Max / Min:	13.11		
UG (adjacent pts):	1.70		
CU:	0.39		
No. of Points:	380		
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI		
Luminaire Output:	136,000 / 65,600 lumens		
No. of Luminaires:	70		
Total Load:	57.12 KW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1200	>120,000	>120,000	>120,000
TLC-LED-600	>120,000	>120,000	>120,000

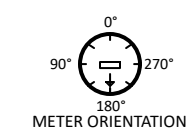
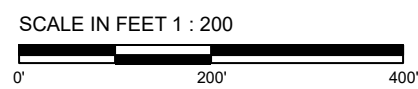
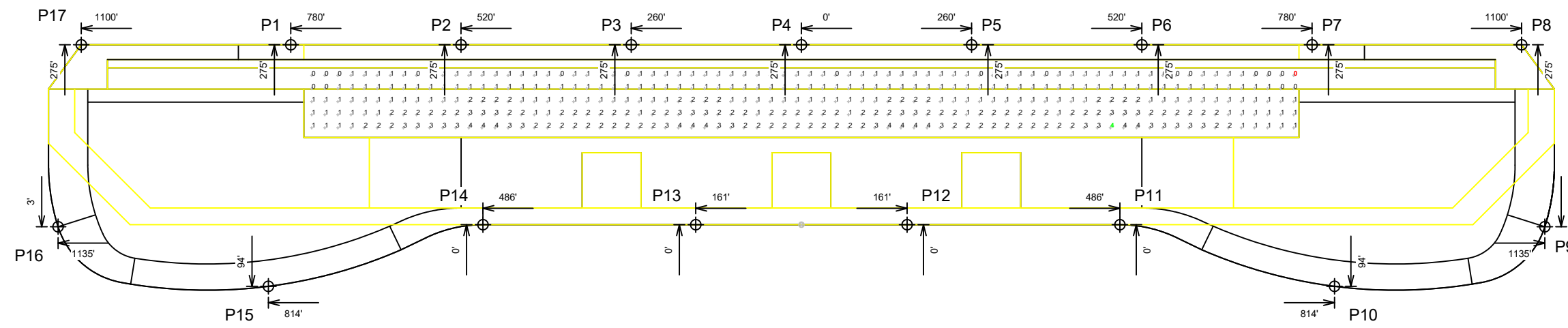
Reported per TM-21-11. See luminaire datasheet for details.

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**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.



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



EQUIPMENT LIST FOR AREAS SHOWN							
QTY	LOCATION	POLE SIZE	GRADE ELEVATION	MOUNTING HEIGHT	Luminaires		
					LUMINAIRE TYPE	QTY / POLE	THIS GRID
7	P1-P7	80'	-	80'	TLC-LED-600	2	2
4	P10 P12-P13 P15	80'	-	80'	TLC-LED-600	3	3
2	P11, P14	80'	-	80'	TLC-LED-600	4	4
4	P16-P17 P8-P9	80'	-	80'	TLC-LED-600	2	2
17	TOTALS					70	70

## Surf Ranch Coral Mountain

La Quinta, CA

GRID SUMMARY	
Name:	Blanket Grid
Size:	0' x 0'
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

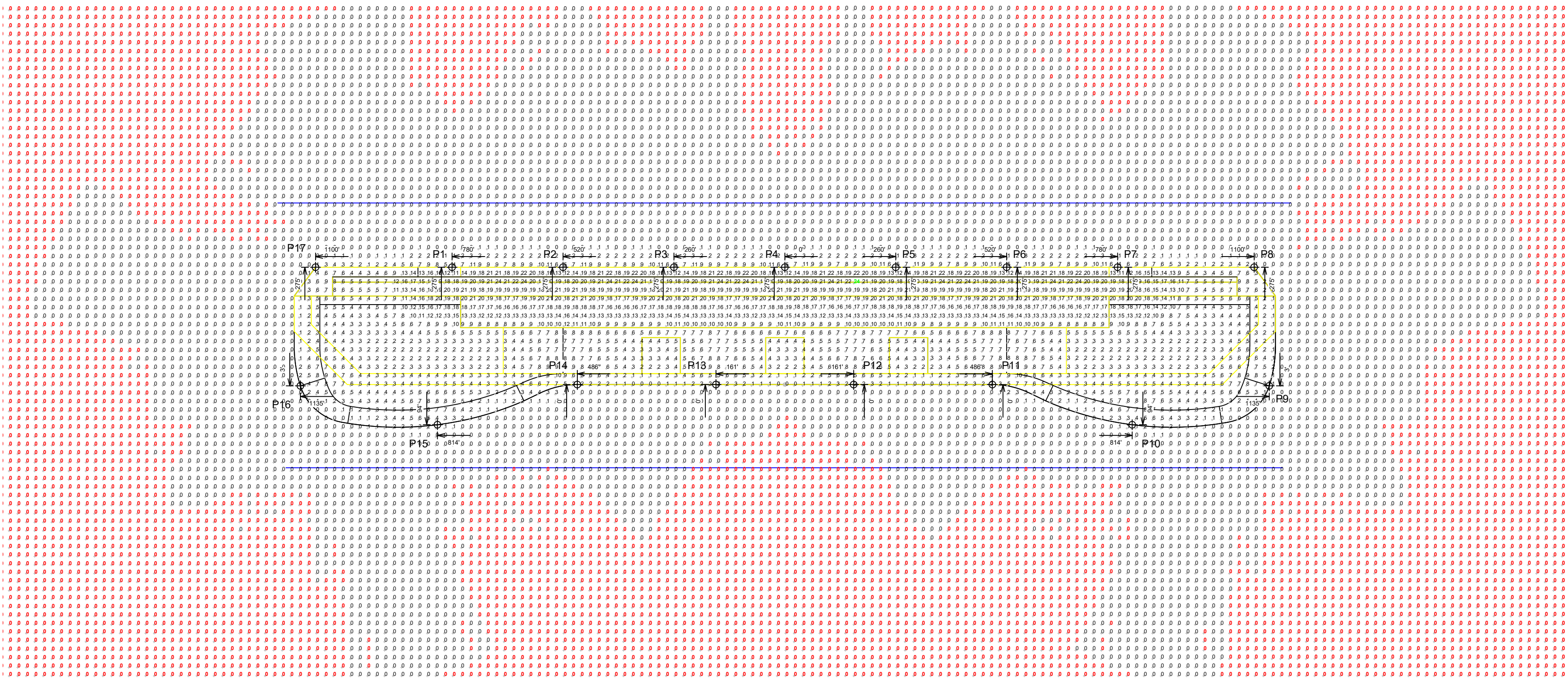
ILLUMINATION SUMMARY			
MAINTAINED HORIZONTAL FOOTCANDLES			
Entire Grid			
Scan Average:	1.13		
Maximum:	24.15		
Minimum:	0.00		
Avg / Min:	-		
Max / Min:	-		
UG (adjacent pts):	411.09		
CU:	1.00		
No. of Points:	14615		
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI		
Luminaire Output:	136,000 / 65,600 lumens		
No. of Luminaires:	70		
Total Load:	57.12 kW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1200	>120,000	>120,000	>120,000
TLC-LED-600	>120,000	>120,000	>120,000

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**ILLUMINATION SUMMARY**

EQUIPMENT LIST FOR AREAS SHOWN								
QTY	LOCATION	Pole		Luminaires				
		SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
7	P1-P7	80'	-	80'	TLC-LED-600	2	2	0
4	P10 P12-P13 P15	80'	-	80'	TLC-LED-600	3	3	0
2	P11, P14	80'	-	80'	TLC-LED-600	4	4	0
4	P16-P17 P8-P9	80'	-	80'	TLC-LED-600	2	2	0
TOTALS						70	70	0

### Surf Ranch Coral Mountain

La Quinta, CA

GRID SUMMARY	
Name:	Blanket Grid
Size:	0' x 0'
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
MAINTAINED MAX VERTICAL FOOT CANDLES	
Entire Grid	
Scan Average:	1.61
Maximum:	34.96
Minimum:	0.00
Avg / Min:	-
Max / Min:	-
UG (adjacent pts):	278.36
CU:	1.00
No. of Points:	14615

LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI		
Luminaire Output:	136,000 / 65,600 lumens		
No. of Luminaires:	70		
Total Load:	57.12 kW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1200	>120,000	>120,000	>120,000
TLC-LED-600	>120,000	>120,000	>120,000

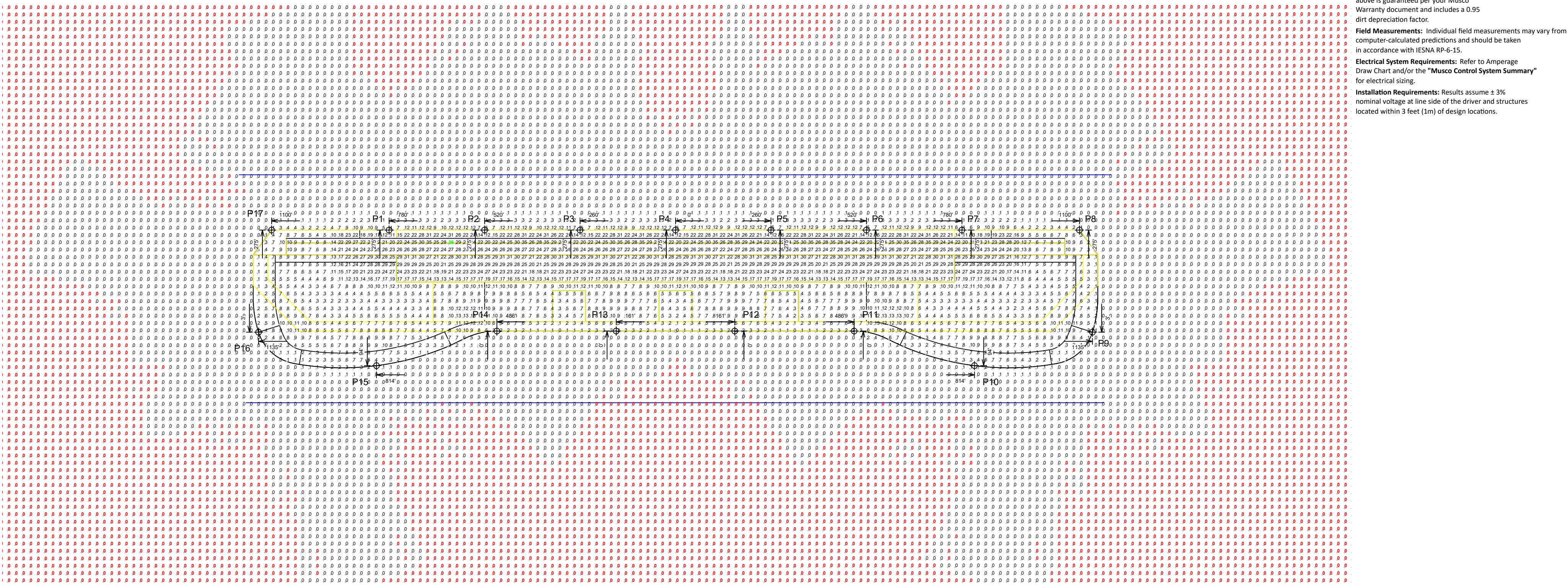
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ENGINEERED DESIGN By: T.Newendorp • File #205498A\_R1 • 07-May-20

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



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### ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN									
QTY	LOCATION	Pole		Luminaires					
		SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
7	P1-P7	80'	-	80'	TLC-LED-600	2	2	0	
4	P10 P12-P13 P15	80'	-	80'	TLC-LED-600	3	3	0	
2	P11, P14	80'	-	80'	TLC-LED-600	4	4	0	
4	P16-P17 P8-P9	80'	-	80'	TLC-LED-600	2	2	0	
17	TOTALS						70	70	0

## Surf Ranch Coral Mountain

La Quinta, CA

### GRID SUMMARY

Name: North Property Line  
 Spacing: 20.0'  
 Height: 3.0' above grade

### ILLUMINATION SUMMARY

CANDELA (PER FIXTURE)

Entire Grid  
**Scan Average: 382.7852**  
 Maximum: 912.1423  
 Minimum: 0.8590  
 No. of Points: 119

LUMINAIRE INFORMATION

Color / CRI: 5700K - 75 CRI  
 Luminaire Output: 136,000 / 65,600 lumens  
**No. of Luminaires: 70**  
 Total Load: 57.12 kW

Luminaire Type	Lumen Maintenance		
	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1200	>120,000	>120,000	>120,000
TLC-LED-600	>120,000	>120,000	>120,000

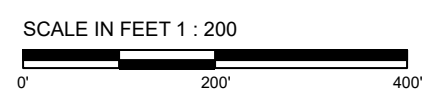
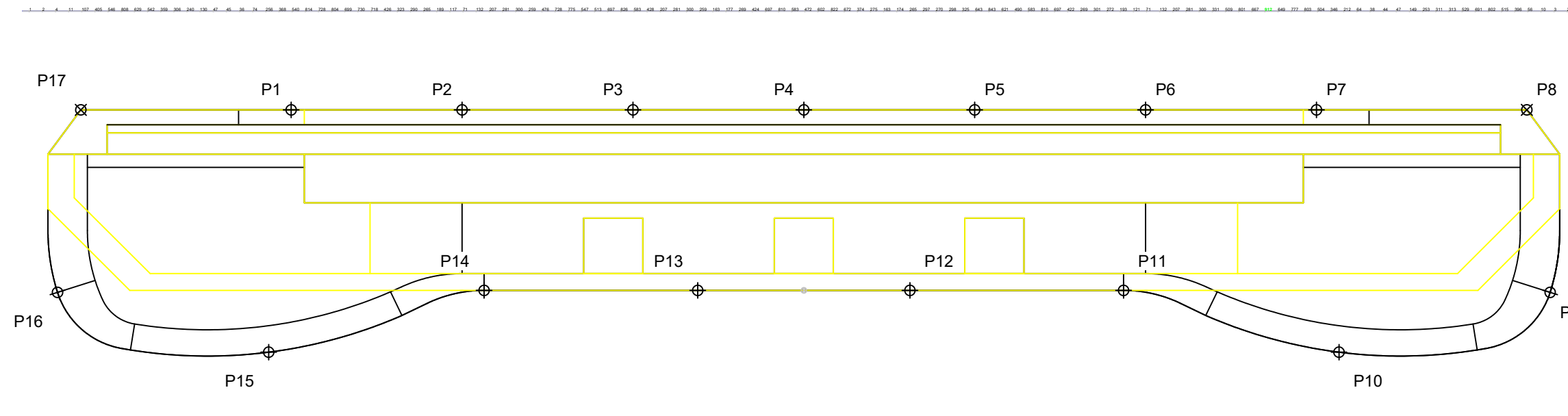
Reported per TM-21-11. See luminaire datasheet for details.

**Guaranteed Performance:** The ILLUMINATION described above is guaranteed per your Musco Warranty document.

**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.



EQUIPMENT LIST FOR AREAS SHOWN									
QTY	Pole			Luminaires					
	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
7	P1-P7	80'	-	80'	TLC-LED-600	2	2	0	
4	P10 P12-P13 P15	80'	-	80'	TLC-LED-600	3	3	0	
2	P11, P14	80'	-	80'	TLC-LED-600	4	4	0	
4	P16-P17 P8-P9	80'	-	80'	TLC-LED-600	2	2	0	
17	TOTALS						70	70	0

## Surf Ranch Coral Mountain

La Quinta, CA

### GRID SUMMARY

Name: South Property Line  
 Spacing: 20.0'  
 Height: 3.0' above grade

### ILLUMINATION SUMMARY

CANDELA (PER FIXTURE)

Entire Grid  
**Scan Average: 93.4263**  
 Maximum: 461.7480  
 Minimum: 0.0000  
 No. of Points: 117

LUMINAIRE INFORMATION

Color / CRI: 5700K - 75 CRI  
 Luminaire Output: 136,000 / 65,600 lumens  
**No. of Luminaires: 70**  
 Total Load: 57.12 kW

Luminaire Type	Lumen Maintenance		
	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1200	>120,000	>120,000	>120,000
TLC-LED-600	>120,000	>120,000	>120,000

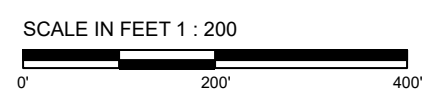
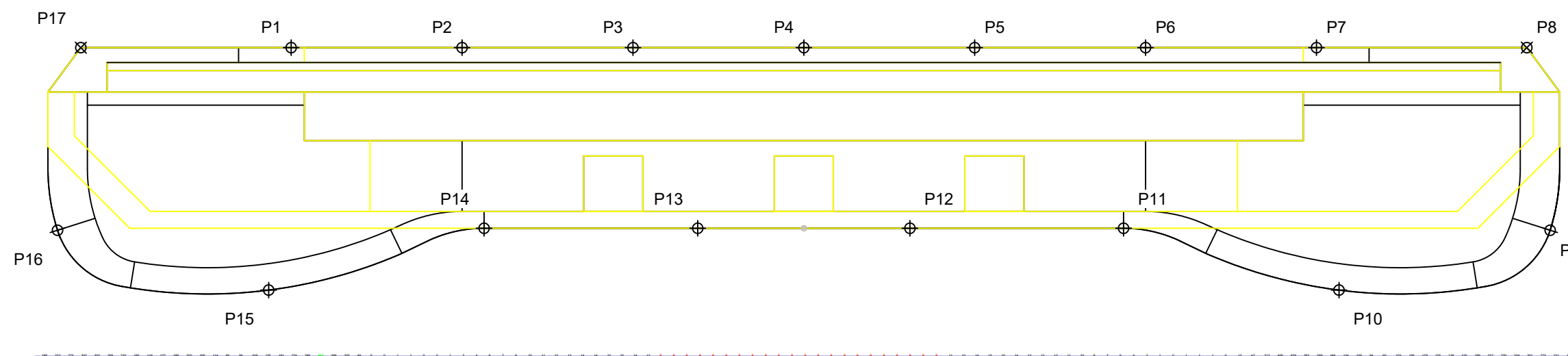
Reported per TM-21-11. See luminaire datasheet for details.

**Guaranteed Performance:** The ILLUMINATION described above is guaranteed per your Musco Warranty document.

**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.



**EQUIPMENT LAYOUT**

**INCLUDES:**  
- Surf Ranch

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

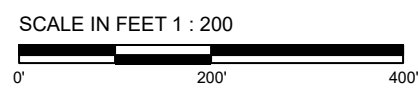
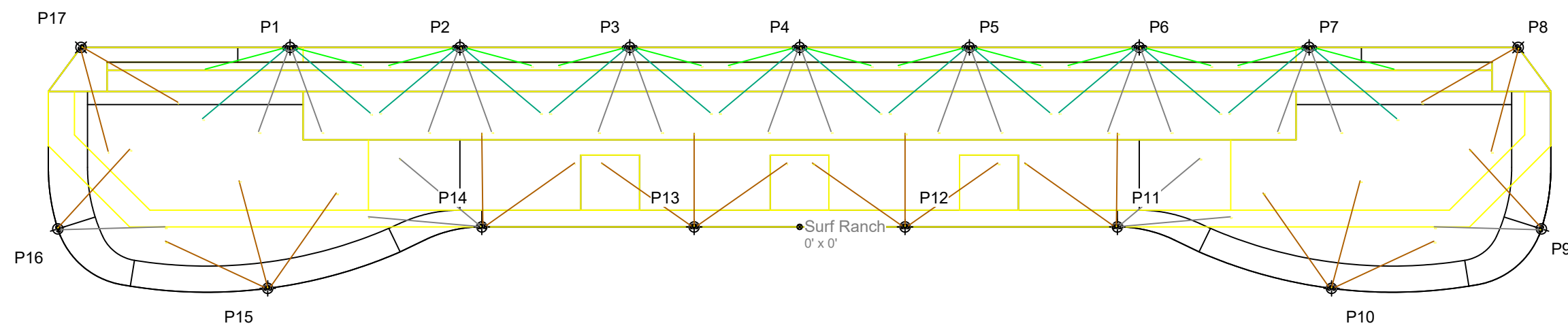
**Installation Requirements:** Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

**EQUIPMENT LIST FOR AREAS SHOWN**

QTY	LOCATION	Pole		MOUNTING HEIGHT	Luminaires	
		SIZE	GRADE ELEVATION		LUMINAIRE TYPE	QTY / POLE
7	P1-P7	80'	-	80'	TLC-LED-600	2
4	P10 P12-P13 P15	80'	-	80'	TLC-LED-1200	4
2	P11, P14	80'	-	80'	TLC-LED-600	4
4	P16-P17 P8-P9	80'	-	80'	TLC-LED-600	2
17	TOTALS					70

**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)	480 (60)
Single Phase Voltage	7.0	6.6	6.1	5.2	4.2	4.0
TLC-LED-1200	3.4	3.2	3.0	2.6	2.0	1.9
TLC-LED-600						



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



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**GLARE IMPACT**

Summary

Map indicates the maximum candela an observer would see when facing the brightest light source from any direction.

A well-designed lighting system controls light to provide maximum useful on-field illumination with minimal destructive off-site glare.

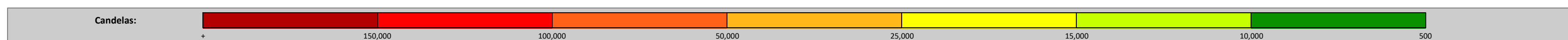
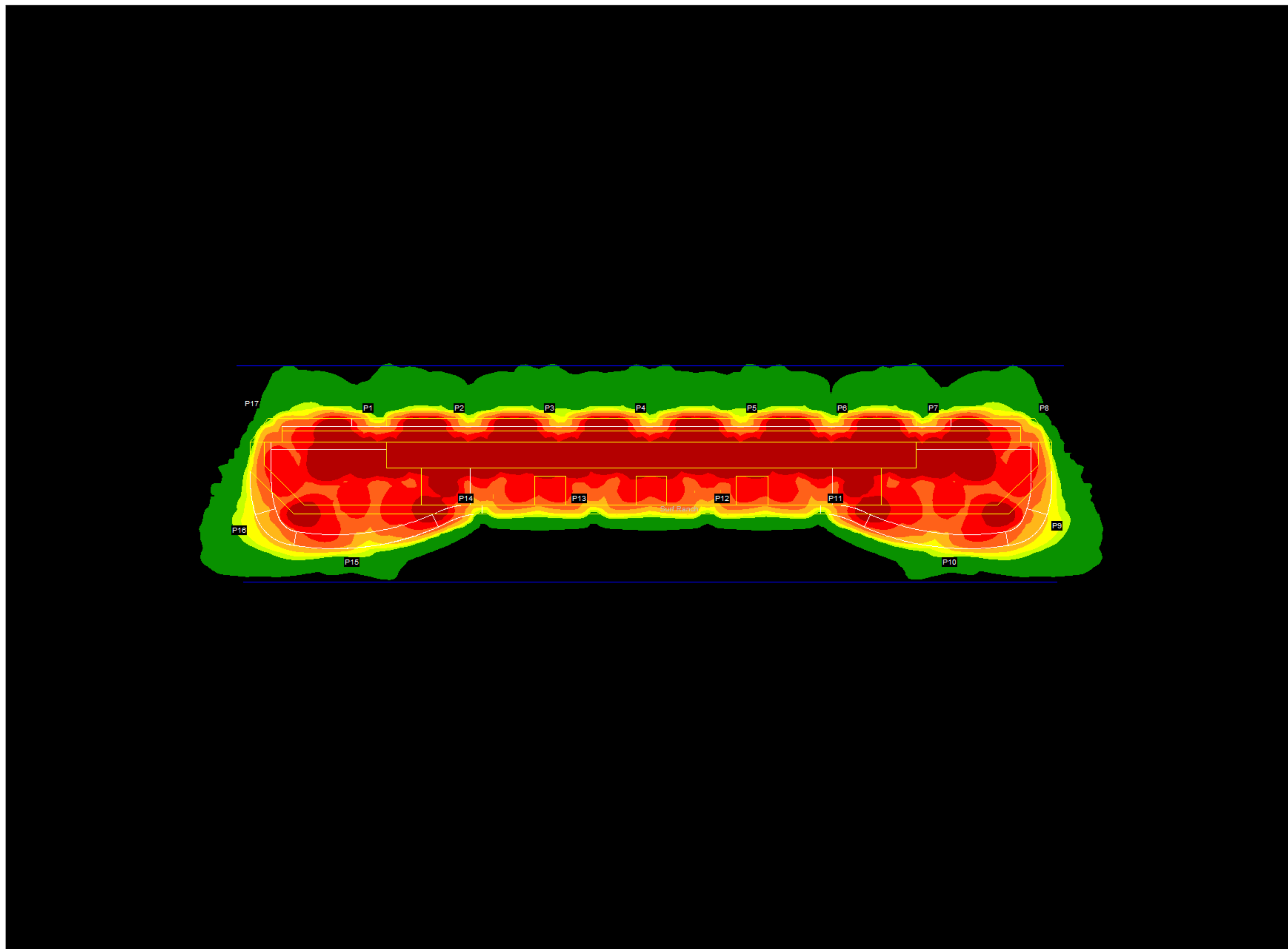
**GLARE**

Candela Levels

**High Glare: 150,000 or more candela**  
Should only occur on or very near the lit area where the light source is in direct view. Care must be taken to minimize high glare zones.

**Significant Glare: 25,000 to 75,000 candela**  
Equivalent to high beam headlights of a car.

**Minimal to No Glare: 500 or less candela**  
Equivalent to 100W incandescent light bulb.



**We Make It Happen.**

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