### **Westtown School Soccer**

West Chester,PA

### **Lighting System**

Pole / Fixture						
Pole ID Pole Height Mtg Height			Fixture Qty	Luminaire Type	Load	Circuit
A1-A11	20'	20' 20' 1		CREE OSQ	0.10 kW	D
A12-A13	20' 20' 1		CREE OSQ	0.10 kW	С	
S1-S2	70'	70' 9		TLC-LED-1500	12.87 kW	Α
S3	70'	70'	8	TLC-LED-1500	11.44 kW	Α
		30'	1	CREE OSQ	0.10 kW	С
S4	70'	70'	8	TLC-LED-1500	11.44 kW	Α
17			48		50.08 kW	

Circuit Summ	Circuit Summary							
Circuit	Circuit Description							
Α	Soccer 1	48.62 kW	34					
С	Sidewalk	0.31 kW	3					
D	Parking	1.14 kW	11					

Fixture Type Summary								
Type Source		Wattage	Lumens	L90	L80	L70	Quantity	
TLC-LED-1500	LED 5700K - 75 CRI	1430W	160,000	>120,000	>120,000	>120,000	34	
CREE OSQ	LED 5700K - 70 CRI	104W	15,295	-			14	

Single Luminaire Amperage	ingle Luminaire Amperage Draw Chart						
Driver (.90 min power factor)	r factor) Max Line Amperage Per Luminaire						
Single Phase Voltage		220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
TLC-LED-1500	8.5	8.1	7.4	6.4	5.1	4.7	3.7
Cree OSQ	-	-	-	-	0.3	-	0.2

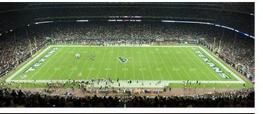
### **Light Level Summary**

Calculation Grid Summary									
Grid Name	Calculation Metric	Illumination   Ave   Min   Max   Max/Min   Ave/Min					Circuits	Fixture Qty	
Soccer 1	Horizontal Illuminance	51.8	41	Max 71	1 72	1.26	Δ	3/1	
J J J J J J J J J J J J J J J J J J J	i ionzontai illullillance	01.0	'	''	1.72	1.20	^	34	

### From Hometown to Professional

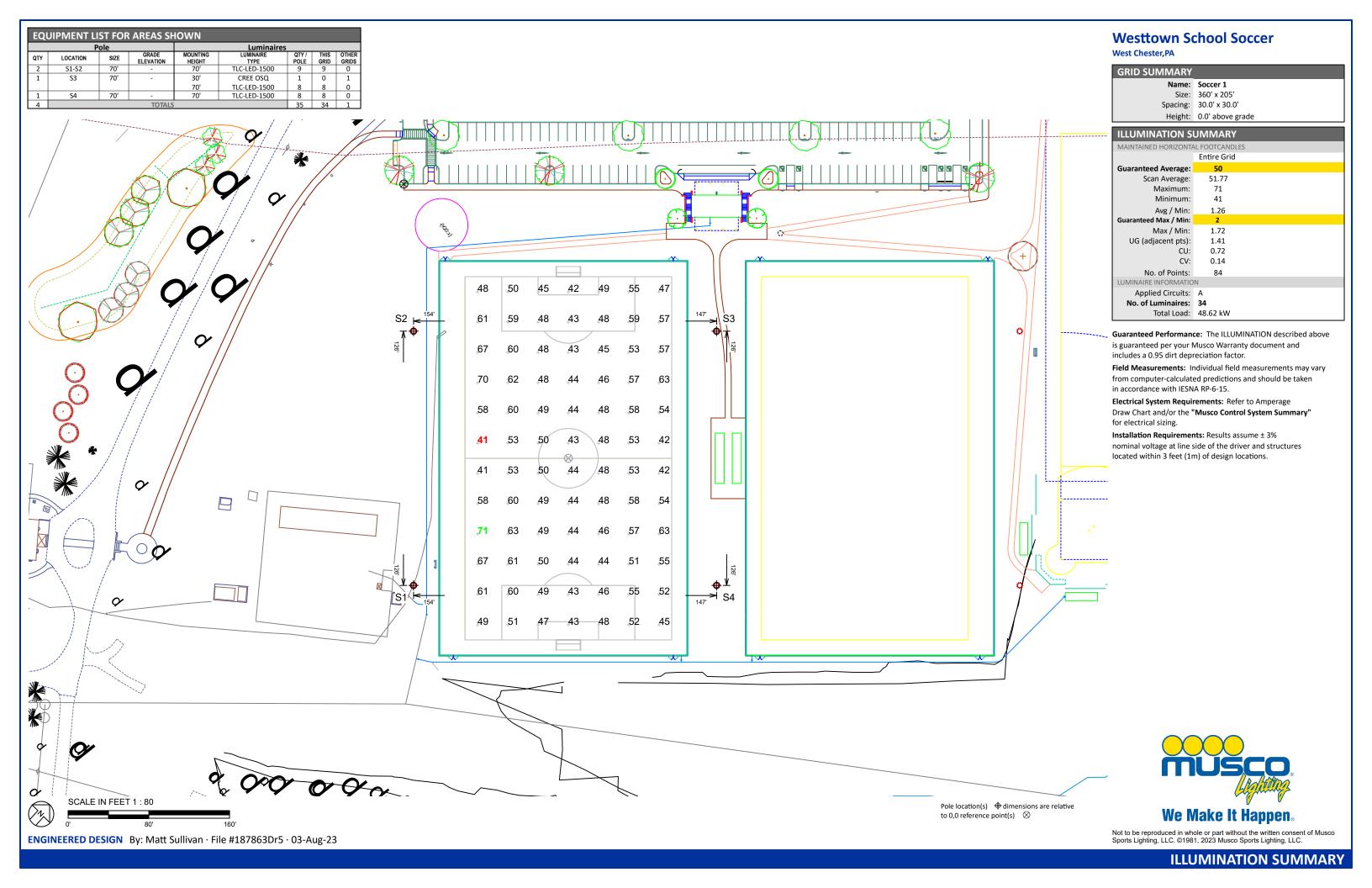


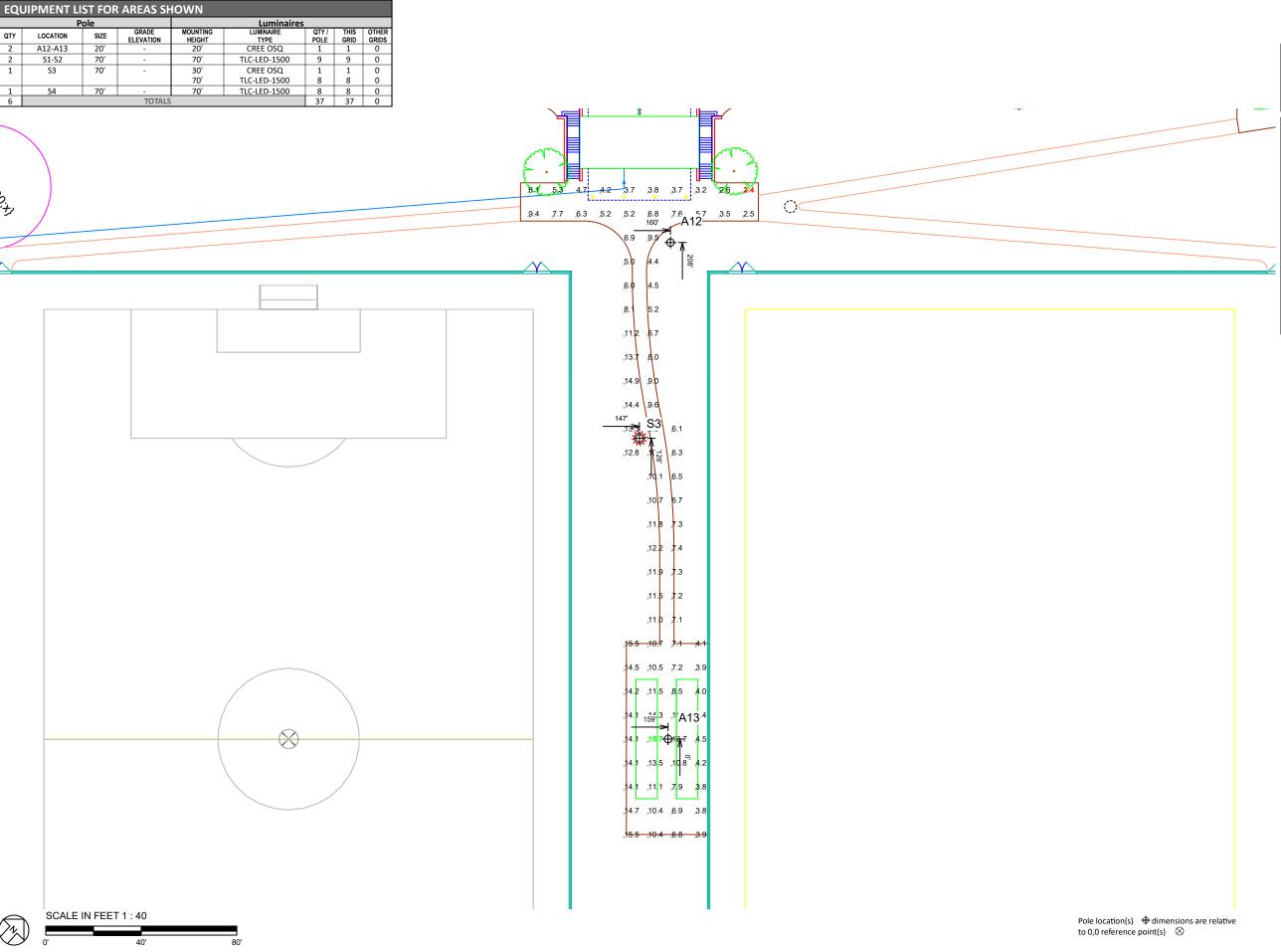












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### **Westtown School Soccer**

West Chester,PA

RID SUMMARY

Name: Sidewalk

Size: 360' x 205'

Spacing: 10.0' x 10.0'

Height: 0.0' above grade

**ILLUMINATION SUMMARY Guaranteed Average:** Scan Average: 8.47 Maximum: 16 Minimum: Guaranteed Avg / Min: Avg / Min: 3.48 Max / Min: 6.46 2.80 UG (adjacent pts): CU: 0.01 No. of Points: 92 LUMINAIRE INFORMATION Applied Circuits: A, C No. of Luminaires: 37 Total Load: 48.93 kW

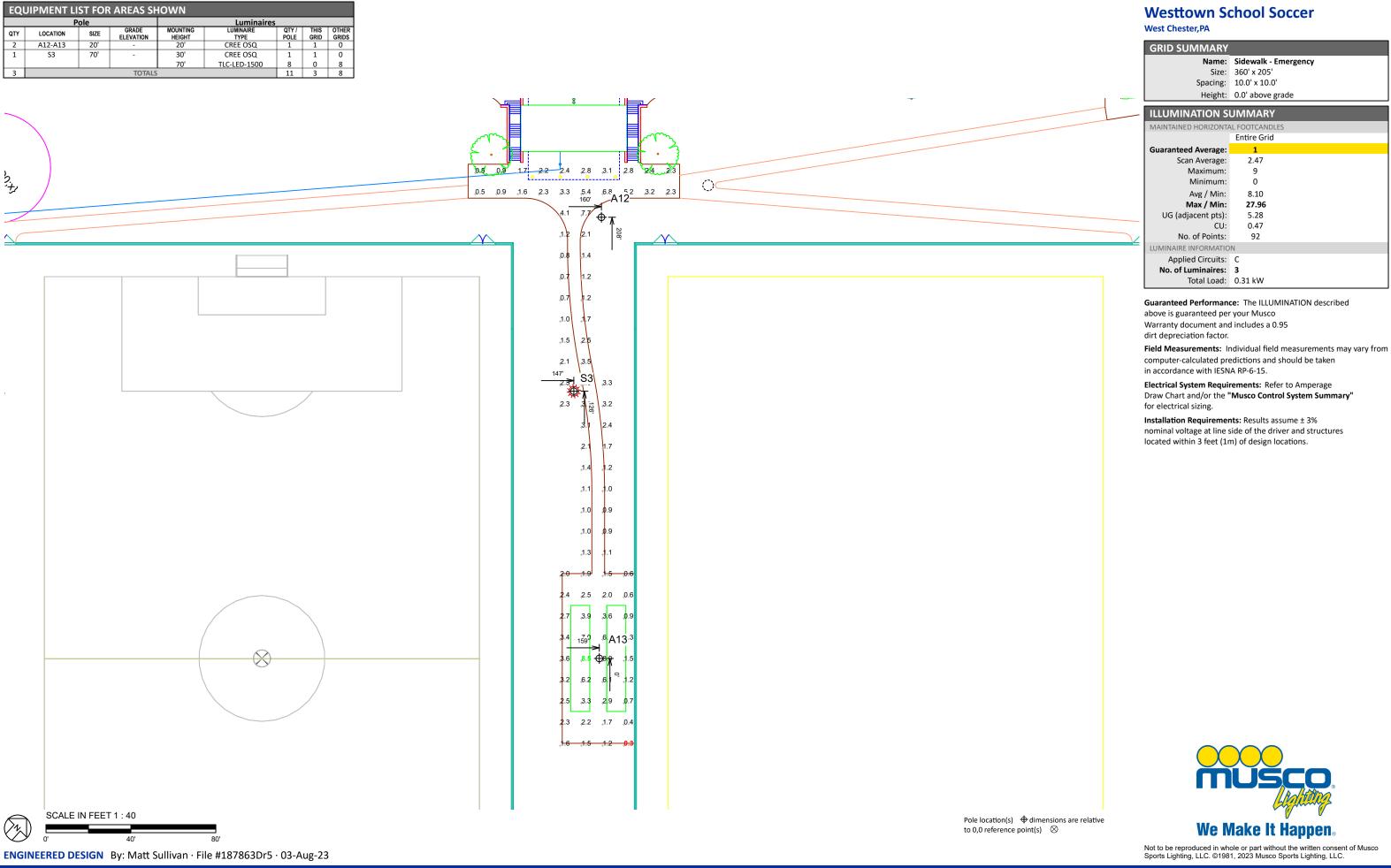
**Guaranteed Performance:** The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

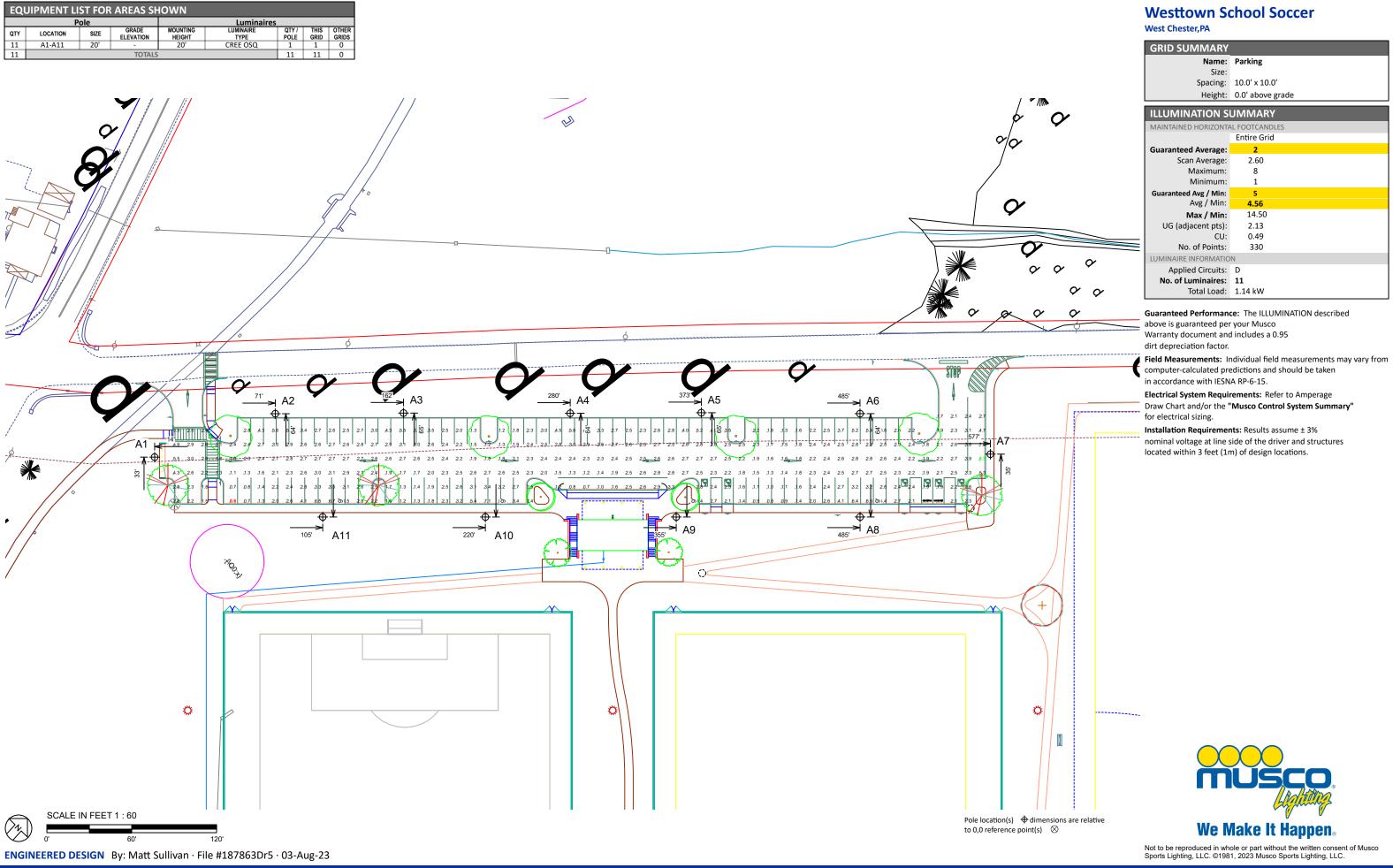
**Field Measurements:** Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

**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.







### A12-A13 CREE OSQ TLC-LED-1500 CREE OSQ 30' TLC-LED-1500 TLC-LED-1500 D.O D.O D.O D.O D.O D.O D.O D.O SCALE IN FEET 1:150 to 0,0 reference point(s) $\otimes$

**EQUIPMENT LIST FOR AREAS SHOWN** 

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### **Westtown School Soccer**

West Chester,PA

GRID SUMMARY

Name: Blanket Grid - Soccer / Parking / Sidewalk
Spacing: 20.0' x 20.0'
Height: 0.0' above grade

# ILLUMINATION SUMMARY MAINTAINED HORIZONTAL FOOTCANDLES Entire Grid Scan Average: 4.56 Maximum: 68 Minimum: 0 Avg / Min: Max / Min: UG (adjacent pts): 10.91 CU: 0.99 No. of Points: 3068 LUMINAIRE INFORMATION Applied Circuits: A, C, D No. of Luminaires: 48 Total Load: 50.08 kW

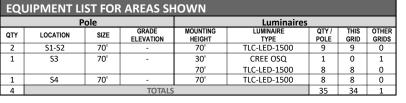
**Guaranteed Performance:** The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

**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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### A11 0.00 0.00 S2 **S**3 0.23 Q 0.12 0.00 0.00 0.01 0.06 0.05 0.03 0 $\Box$ SCALE IN FEET 1: 100 to 0,0 reference point(s) $\otimes$

### **Westtown School Soccer**

West Chester,PA

Name: 150' Spill - HZ
Spacing: 30.0'
Height: 0.0' above grade

## ILLUMINATION SUMMARY HORIZONTAL FOOTCANDLES Entire Grid Scan Average: 0.0476 Maximum: 0.25 Minimum: 0.00 No. of Points: 69 LUMINAIRE INFORMATION Applied Circuits: A No. of Luminaires: 34 Total Load: 48.62 kW

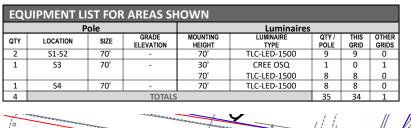
**Guaranteed Performance:** The ILLUMINATION described above is guaranteed per your Musco Warranty document

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

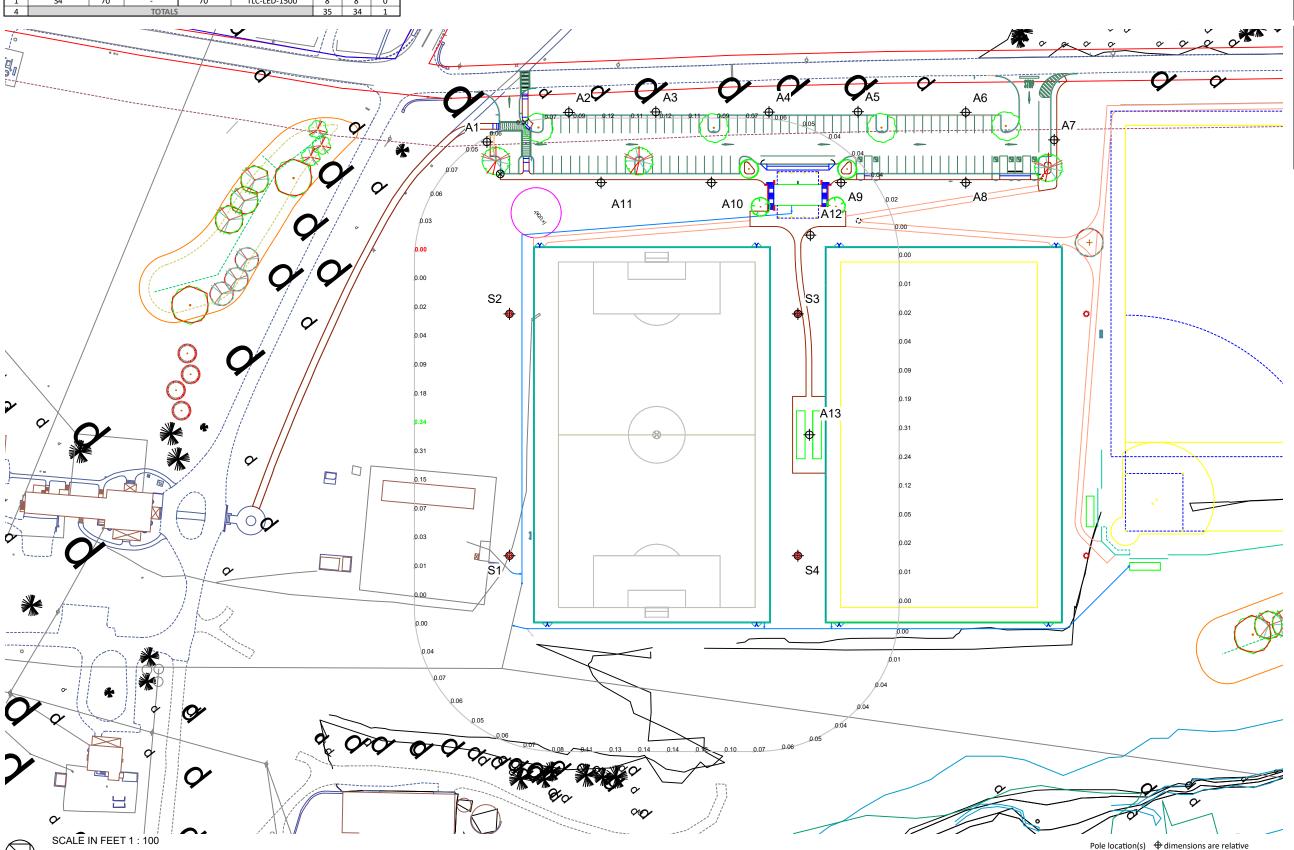
**Electrical System Requirements:** Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

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





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### **Westtown School Soccer**

West Chester,PA

GRID SUMMARY

Name: 150' Spill - VT

Spacing: 30.0'

Height: 5.0' above grade

## ILLUMINATION SUMMARY MAX VERTICAL FOOTCANDLES Entire Grid 0.0757 Maximum: 0.34 Minimum: 0.00 No. of Points: 69 LUMINAIRE INFORMATION Applied Circuits: No. of Luminaires: Total Load: 48.62 kW

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

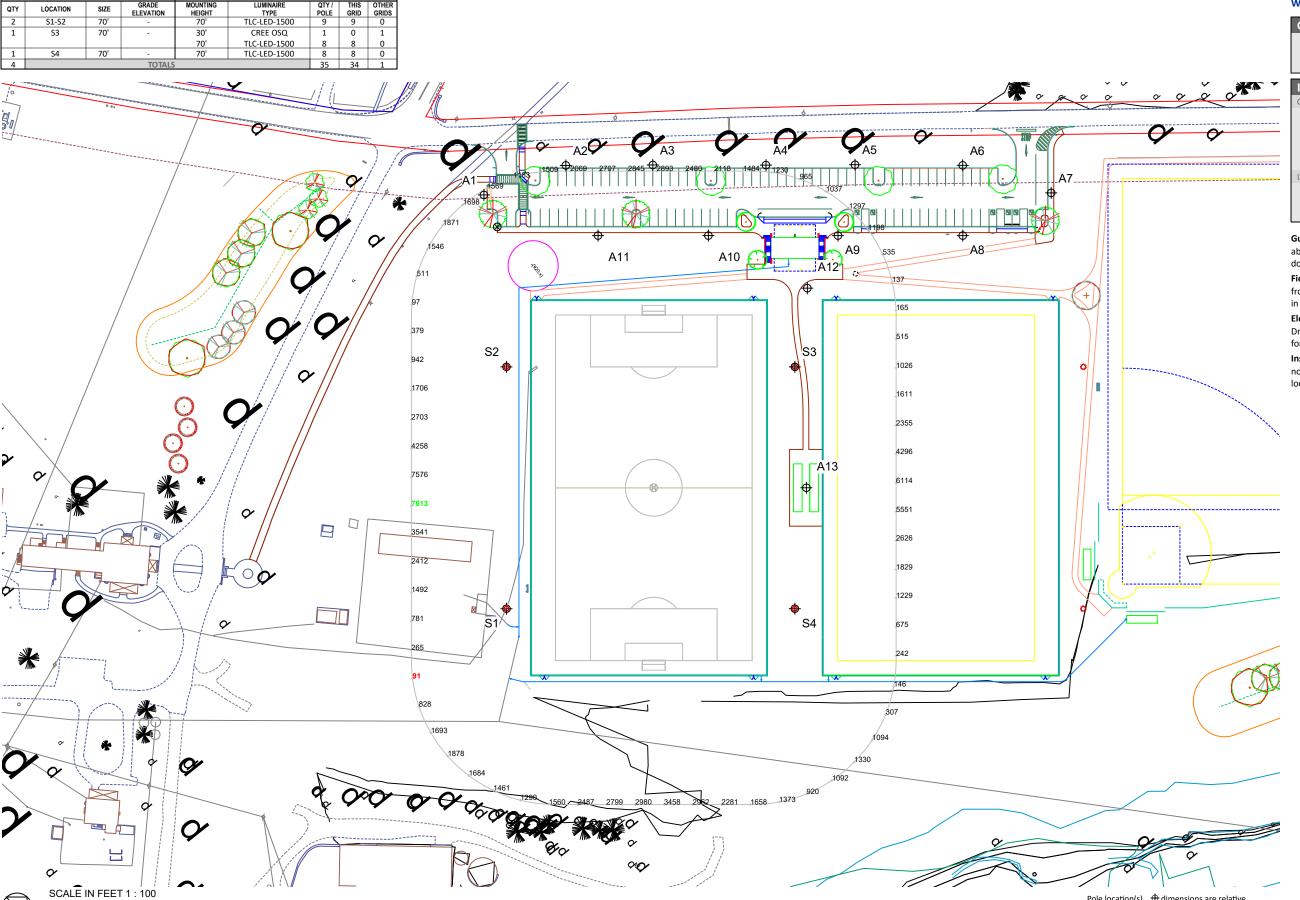
**Field Measurements:** Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

**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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### **Westtown School Soccer**

West Chester,PA

**GRID SUMMARY** Name: 150' Glare Spacing: 30.0' Height: 5.0' above grade

### **ILLUMINATION SUMMARY** CANDELA (PER FIXTURE) Entire Grid Scan Average: 1887.7133 Maximum: 7612.62 Minimum: 90.99 No. of Points: 69 LUMINAIRE INFORMATION Applied Circuits: A No. of Luminaires: 34 Total Load: 48.62 kW

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

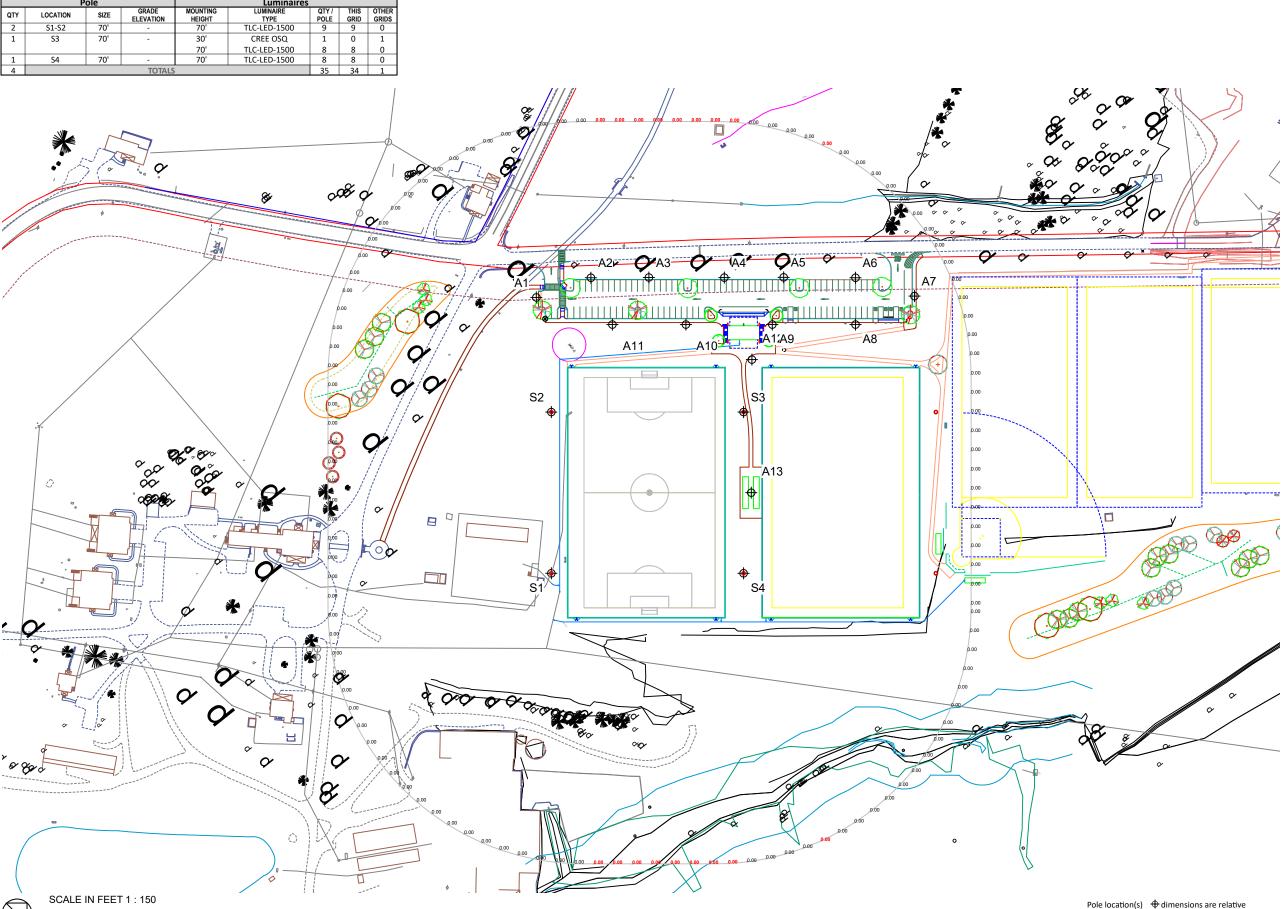
Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

**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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### **Westtown School Soccer**

West Chester,PA

Rame: 400' Spill - HZ
Spacing: 30.0'
Height: 0.0' above grade

## ILLUMINATION SUMMARY HORIZONTAL FOOTCANDLES Entire Grid 0.0000 Maximum: 0.00 Minimum: 0.00 No. of Points: 122 LUMINAIRE INFORMATION Applied Circuits: No. of Luminaires: Total Load: 48.62 kW

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

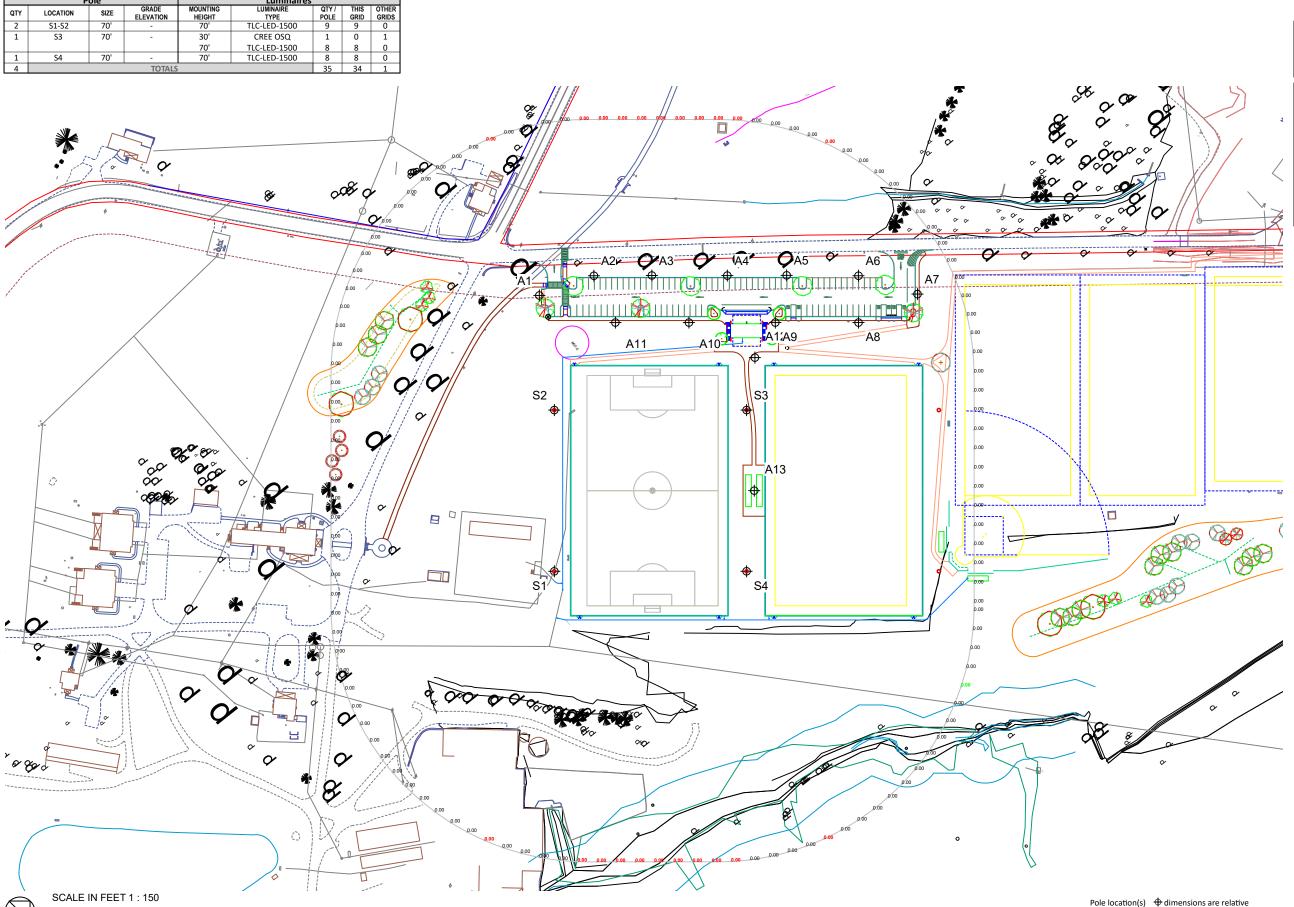
**Field Measurements:** Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

**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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### **Westtown School Soccer**

West Chester,PA

Rame: 400' Spill - VT
Spacing: 30.0'
Height: 5.0' above grade

## ILLUMINATION SUMMARY MAX VERTICAL FOOTCANDLES Entire Grid 0.0000 Maximum: 0.00 No. of Points: 122 LUMINAIRE INFORMATION Applied Circuits: No. of Luminaires: Total Load: 48.62 kW

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

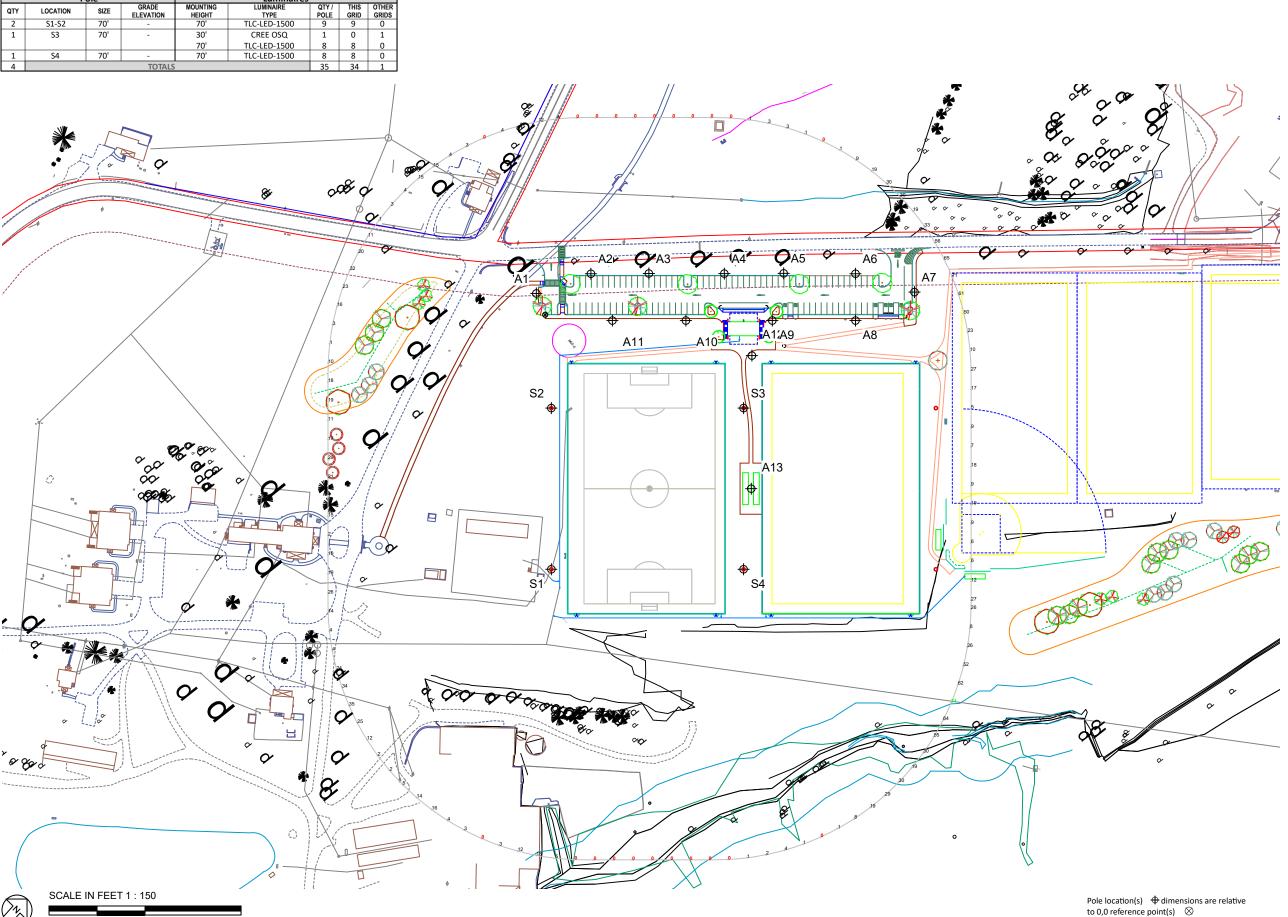
**Field Measurements:** Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

**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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### **Westtown School Soccer**

West Chester,PA

Rame: 400' Glare
Spacing: 30.0'
Height: 5.0' above grade

## ILLUMINATION SUMMARY CANDELA (PER FIXTURE) Entire Grid 14.6268 Maximum: Minimum: 0.00 No. of Points: 122 LUMINAIRE INFORMATION Applied Circuits: No. of Luminaires: Total Load: 48.62 kW

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

**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** A1-A11 A12-A13 CREE OSQ 20' 20' S1-S2 TLC-LED-1500 CREE OSQ S3 30' TLC-LED-1500 TLC-LED-1500 0. SCALE IN FEET 1:120 Pole location(s) $\bigoplus$ dimensions are relative to 0,0 reference point(s) $\bigotimes$

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### **Westtown School Soccer**

West Chester,PA

Rame: Westtown Road Spill - Horizontal 30.0'

Height: 0.0' above grade

ILLUMINATION SUMMARY

HORIZONTAL FOOTCANDLES

Entire Grid

Scan Average: 0.0040

Maximum: 0.03

Minimum: 0.00

No. of Points: 37

LUMINAIRE INFORMATION

Applied Circuits: A, C, D

No. of Luminaires: 48

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

Total Load: 50.08 kW

**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** A1-A11 A12-A13 CREE OSQ 20' 20' S1-S2 TLC-LED-1500 CREE OSQ S3 30' TLC-LED-1500 TLC-LED-1500 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.01 0.01 0.01 0.01 0.01 0.02 0.03 0.04 0.06 0.09 SCALE IN FEET 1:120 Pole location(s) $\bigoplus$ dimensions are relative to 0,0 reference point(s) $\bigotimes$

**ENGINEERED DESIGN** By: Matt Sullivan · File #187863Dr5 · 03-Aug-23

### **Westtown School Soccer**

West Chester,PA

Rame: Westtown Road Spill - Vertical
Spacing: 30.0'
Height: 5.0' above grade

### ILLUMINATION SUMMARY MAX VERTICAL FOOTCANDLES Entire Grid Scan Average: 0.0186 Maximum: 0.09 Minimum: 0.00 No. of Points: 37 LUMINAIRE INFORMATION Applied Circuits: A, C, D No. of Luminaires: 48

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

Total Load: 50.08 kW

**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** A1-A11 A12-A13 CREE OSQ 20' 20' S1-S2 TLC-LED-1500 CREE OSQ S3 30' TLC-LED-1500 TLC-LED-1500 LUMINAIRE INFORMATION 08 d SCALE IN FEET 1:120 Pole location(s) $\bigoplus$ dimensions are relative to 0,0 reference point(s) $\bigotimes$

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### **Westtown School Soccer**

West Chester,PA

**GRID SUMMARY** Name: Westtown Road Glare Spacing: 30.0'

Height: 5.0' above grade

**ILLUMINATION SUMMARY** CANDELA (PER FIXTURE)

> **Entire Grid** Scan Average: 475.3892 Maximum: 1956.85 Minimum: 60.33 No. of Points: 37

Applied Circuits: A, C, D No. of Luminaires: 48 Total Load: 50.08 kW

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

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.



