Alachua Legacy Park Soccer

Alachua,FL

Lighting System

Pole / Fixture Summary									
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit			
S1-S2	70'	70'	7	TLC-LED-1150	8.05 kW	Α			
		70'	7	TLC-LED-1150	8.05 kW	В			
S3-S4	70'	70'	7	TLC-LED-1150	8.05 kW	Α			
S5-S6	70'	70'	7	FUTURE	8.05 kW	С			
		70'	7	TLC-LED-1150	8.05 kW	В			
6			70		80.50 kW				

Circuit Summary					
Circuit	Description	Load	Fixture Qty		
A	Soccer 1	32.2 kW	28		
В	Soccer 2	32.2 kW	28		
С	Soccer 3	16.1 kW	14		

Fixture Type Summary							
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-1150	LED 5700K - 75 CRI	1150W	121,000	>63,500	>63,500	>63,500	56

Light Level Summary

Calculation Grid Summary								
Grid Name	Calculation Metric	Illumination Ave Min Max Max/Min Ave/Min				Circuits Fixture Qty		
Blanket Grid	Blanket Grid Horizontal Soccer 1 Horizontal Illuminance		0	40	336458.30	Ave/IVIIII	A,B,C	70
Soccer 1			26.5	42.3	1.60	1.26	Α	28
Soccer 2	Horizontal Illuminance	33.1	26.4	41.6	1.58	1.25	В	28
Soccer 3 Horizontal Illuminance		0	0	0	0.00		С	14

From Hometown to Professional





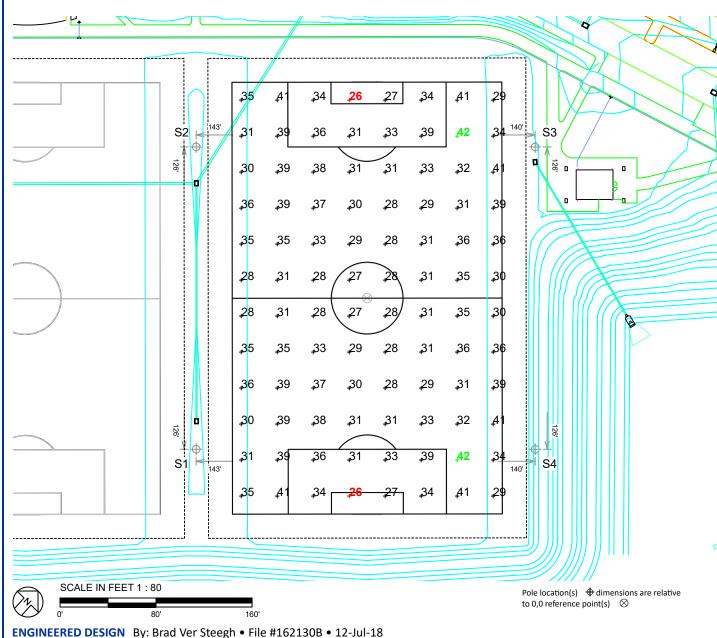






EQUIPMENT LIST FOR AREAS SHOWN Luminaires LOCATION SIZE ELEVATION HEIGHT GRID GRIDS S1-S2 70' 70' TLC-LED-1150 2 S3-S4 70' 70' TLC-LED-1150 0 TOTALS 28

^{*} This structure utilizes a back-to-back mounting configuration



Alachua Legacy Park Soccer

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GRID SUMMARY					
Name:	Soccer 1				
Size:	360' x 225'				
Spacing:	30.0' x 30.0'				
Height:	3.0' above grade				

ILLUMINATION SUMMARY						
MAINTAINED HORIZONTA	MAINTAINED HORIZONTAL FOOTCANDLES					
	Entire Grid					
Guaranteed Average:	30					
Scan Average:	33.30					
Maximum:	42.27					
Minimum:	26.49					
Avg / Min:	1.26					
Guaranteed Max / Min:	2.5					
Max / Min:	1.60					
UG (adjacent pts):	1.39					
CU:	0.84					
No. of Points:	96					
LUMINAIRE INFORMATIO	N					
Color / CRI:	5700K - 75 CF	RI				
Luminaire Output:	121,000 lume	ens				
No. of Luminaires:	28					
Total Load:	32.2 kW					
		Lum	en Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs			
TLC-LED-1150	>63,500	>63,500	>63,500			
Reported per TM-21-11.	See luminaire da	tasheet for deta	ils.			

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.

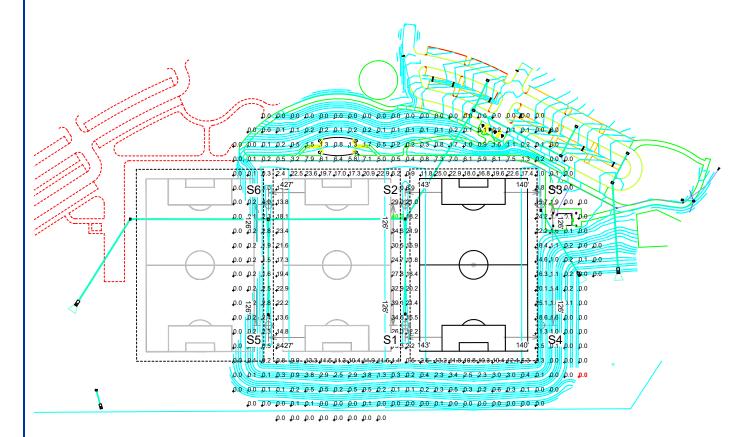
Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

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



EQUIPMENT LIST FOR AREAS SHOWN									
	P	ole		Luminaires					
QTY	LOCATION SIZE GRADE ELEVATION			MOUNTING HEIGHT	LUMINAIRE Type	QTY / POLE	THIS GRID	OTHER GRIDS	
2	S1-S2	70'	-	70'	TLC-LED-1150	7/7*	14	0	
2	S3-S4	70'	-	70'	TLC-LED-1150	7	7	0	
2	S5-S6	70'	-	70'	TLC-LED-1150	7/7*	7	7	
6	TOTALS					70	56	14	

^{*} This structure utilizes a back-to-back mounting configuration



SCALE IN FEET 1 : 200 0' 200' 400'

ENGINEERED DESIGN By: Brad Ver Steegh • File #162130B • 12-Jul-18

Pole location(s) \bigoplus dimensions are relative to 0,0 reference point(s) \bigotimes

Alachua Legacy Park Soccer

GRID SUMMARY	
Name:	Blanket Grid
Size:	360' x 225'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY						
MAINTAINED HORIZONTAL FOOTCANDLES						
Entire Grid						
Scan Average:	4.77					
Maximum:	39.97					
Minimum:	0.00					
Avg / Min:	40121.45					
Max / Min:	336458.25					
UG (adjacent pts):	ent pts): 43.47					
CU:	0.80					
No. of Points:	337					
LUMINAIRE INFORMATIO	N					
Color / CRI:	5700K - 75 CF	RI				
Luminaire Output:	121,000 lume	ens				
No. of Luminaires:	56					
Total Load:	64.4 kW					
		Lum	en Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs			
TLC-LED-1150	>63,500	>63,500	>63,500			
Reported per TM-21-11.	See luminaire da	tasheet for deta	ils.			

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.

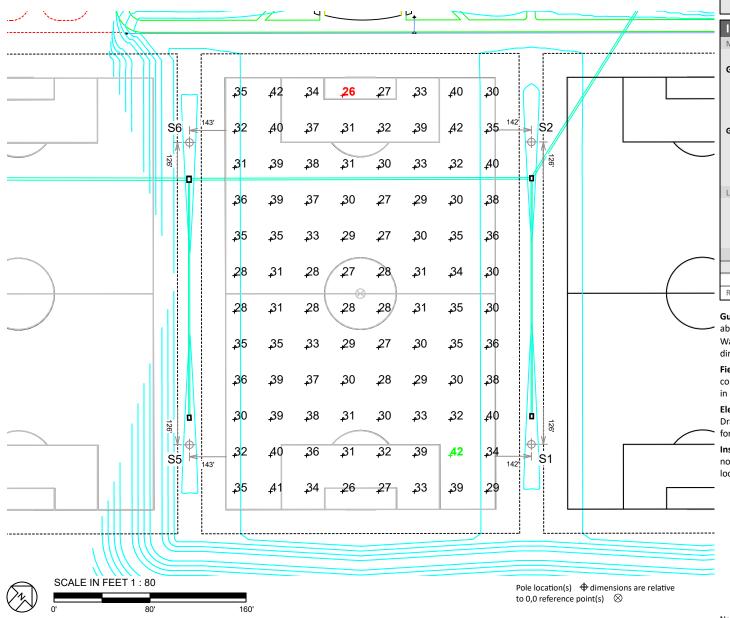
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



EQUIPMENT LIST FOR AREAS SHOWN Luminaires LOCATION SIZE ELEVATION HEIGHT GRID GRIDS S1-S2 70' 70' TLC-LED-1150 2 S5-S6 70' 70' TLC-LED-1150 4 TOTALS 28

ENGINEERED DESIGN By: Brad Ver Steegh • File #162130B • 12-Jul-18

^{*} This structure utilizes a back-to-back mounting configuration



Alachua Legacy Park Soccer

Alachua,FL

GRID SUMMARY	
Name:	Soccer 2
Size:	360' x 225'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY						
MAINTAINED HORIZONTAL FOOTCANDLES						
Entire Grid						
Guaranteed Average:	: <mark>30</mark>					
Scan Average:	33.11					
Maximum:	41.56					
Minimum:	26.39					
Avg / Min:	1.25					
Guaranteed Max / Min:	2.5					
Max / Min:	1.58					
UG (adjacent pts):	1.35					
CU:	0.84					
No. of Points:	96					
LUMINAIRE INFORMATIO	N					
Color / CRI:	5700K - 75 CF	RI				
Luminaire Output:	121,000 lume	ens				
No. of Luminaires:	28					
Total Load:	32.2 kW					
		Lum	en Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs			
TLC-LED-1150	>63,500	>63,500	>63,500			
Reported per TM-21-11.	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.



S6 S2 Soccer 3 Soccer 2 Soccer 1 360' x 225' 360' x 225' 360' x 225' **.** S4 S1

Alachua Legacy Park Soccer

Alachua,FL

EQUIPMENT LAYOUT

INCLUDES:

- · Soccer 1
- · Soccer 2
- · Soccer 3

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								
		Po	ole		Luminaires				
	QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE Type	QTY / POLE		
	4	S1-S2	70'	-	70'	TLC-LED-1150	7/7*		
		S5-S6							
	2	S3-S4	70'	-	70'	TLC-LED-1150	7		
	6	TOTALS							

* 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)						
Single Phase Voltage	208	220	240 (60)	277 (60)	347 (60)	380	480
TLC-LED-1150	6.8	6.5	5.9	5.1	4.1	3.7	3.0



Pole location(s) \bigoplus dimensions are relative to 0,0 reference point(s) \bigotimes



Candelas: + 150,000 100,000 50,000 1,000 500 250

Alachua Legacy Park Soccer

Alachua,FL

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.

