

Tatlock Park Multipurpose Fields

Summit, NJ

LIGHTING SYSTEM

Structure/Fixture Summary

Structure ID	Structure Height	Fixt. Attachment Ht.	Fixture Qty	Fixture Type	Load	Circuit
F1-F2	80'	80'	2	TLC-LED-1500 TLC-LED-1500 TLC-BT-575	2.82 kW	B
		80'	6		8.46 kW	A
		16'	2		1.15 kW	A
F3-F4	70'	70'	2	TLC-LED-1500 TLC-LED-1500 TLC-LED-550 TLC-BT-575	2.82 kW	B
		70'	5		7.05 kW	A
		60'	1		0.54 kW	D
		16'	2		1.15 kW	A
S1	70'	70'	1	TLC-LED-1200 TLC-LED-1500 TLC-LED-900	1.17 kW	C
		70'	3		4.23 kW	C
		70'	3		2.64 kW	C
S2	70'	70'	3	TLC-LED-1200 TLC-LED-1500 TLC-LED-1200	3.51 kW	C
S3	80'	80'	3		3.51 kW	C
		80'	4		5.64 kW	C
S4	80'	80'	1	TLC-LED-1200 TLC-LED-1500 TLC-LED-900	1.17 kW	C
		80'	3		4.23 kW	C
		80'	3		2.64 kW	C
8			68		82.36 kW	

Circuit Summary

Circuit	Description	Load	Fixture Qty
A	Investors Field	35.62 kW	30
B	Walking Track	11.28 kW	8
C	Upper Field	34.38 kW	28
D	Walkway	1.08 kW	2

Fixture Type Summary

Type	Circuit	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-BT-575	A	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	8
TLC-LED-1200	C	LED 5700K - 75 CRI	1170W	150,000	>120,000	>120,000	>120,000	8
TLC-LED-1500	A	LED 5700K - 75 CRI	1410W	181,000	>120,000	>120,000	>120,000	22
TLC-LED-1500	B	LED 5700K - 75 CRI	1410W	181,000	>120,000	>120,000	>120,000	8
TLC-LED-1500	C	LED 5700K - 75 CRI	1410W	181,000	>120,000	>120,000	>120,000	13
TLC-LED-1500	C	LED 5700K - 90 TYP	1410W	148,420	>120,000	>120,000	>120,000	1
TLC-LED-550	D	LED 5700K - 75 CRI	540W	67,000	>120,000	>120,000	>120,000	2
TLC-LED-900	C	LED 5700K - 75 CRI	880W	104,000	>120,000	>120,000	>120,000	6

Single Fixture Amperage Draw Chart

Driver Specifications (.90 min power factor)		Line Amperage Per Fixture (max draw)						
Single Phase Voltage		208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
TLC-LED-1500		8.4	7.9	7.3	6.3	5.0	4.6	3.6
TLC-LED-1200		6.9	6.5	6.0	5.2	4.2	3.8	3.0
TLC-LED-900		5.2	4.9	4.5	3.9	3.1	2.9	2.3
TLC-BT-575		3.3	3.2	2.9	2.5	2.0	1.8	1.5
TLC-LED-550		3.2	3.0	2.8	2.4	1.9	1.8	1.4

Light Level Summary

Grid Name	Calculation Metric	Illumination Ave					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Home Bleacher	Horizontal	9.57	4	22	5.48	2.41	A,B	38
Investors Field	Horizontal Illuminance	52.28	39	66	1.67	1.32	A,B	38
Property Spill @ 3ft.	Horizontal Illuminance	0.0076	0.00	0.05	-	-	A,B,C,D	68
Property Spill @ 5ft.	Max Candela Metric	715.3395	3.58	4763.77	1328.938	199.557	A,B,C,D	68
Property Spill @ 5ft.	Max Vertical Illuminance Metric	0.0186	0.00	0.11	-	-	A,B,C,D	68
Track	Horizontal Illuminance	7.96	1	21	24.35	9.42	B	8
Upper field	Horizontal Illuminance	50.49	30	61	2.08	1.71	C	28
Visitor Bleacher	Horizontal	7.54	5	12	2.53	1.61	A,B	38
Walkway	Horizontal	5.57	0	11	35.60	17.70	D	2
Zero FC Grid	Horizontal	3.07	0	71	-	-	A,B,C,D	68

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

Field Measurements: Individual field measurements may vary from computer-calculated 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 driver and structures located within 3 feet (1m) of design locations.



Equipment List For Areas Shown									
Structure				Fixtures					
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	Fixture Type	QTY/POLE	THIS GRID	OTHER GRIDS	
1	F1	80'	3'	83'	TLC-LED-1500	8	8	0	
				18.5'	TLC-BT-575	2	2	0	
1	F2	80'	-	80'	TLC-LED-1500	8	8	0	
				15.5'	TLC-BT-575	2	2	0	
2	F3-F4	70'	-	70'	TLC-LED-1500	7	7	0	
				60'	TLC-LED-550	1	0	1	
4				15.5'	TLC-BT-575	2	2	0	
									Totals
						40	38	2	

Above Field Level is height of fixtures above area shown



Tatlock Park Multipurpose Fields

Summit, NJ

Grid Summary

Name:	Investors Field
Size:	360' x 160'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

Illumination Summary

MAINTAINED HORIZONTAL FOOTCANDLES

Entire Grid	50
Guaranteed Average	50
Scan Average	52.28
Maximum	66
Minimum	39
Avg/Min	1.32
Guaranteed Max/Min	2
Max/Min	1.67
UG (adjacent pts)	1.67
CU	0.58
No. of Points	72
Fixture Information	
Applied Circuits	A,B
No. of Fixtures	38
Total Load	46.90 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.

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

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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SCALE IN FEET 1 : 50

0' 50' 100'

ENGINEERED DESIGN By: D.Abbott • File #116226E • 06-Aug-25

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

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ILLUMINATION SUMMARY

Equipment List For Areas Shown

QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	Fixtures				
				Above Field Level	Fixture Type	QTY/Pole	This Grid	Other Grids
1	F1	80'	3'	83.0'	TLC-LED-1500	8	2	6
				18.5'	TLC-BT-575	2	0	2
1	F2	80'	-	80'	TLC-LED-1500	8	2	6
				15.5'	TLC-BT-575	2	0	2
2	F3-F4	70'	-	70'	TLC-LED-1500	7	2	5
				60'	TLC-LED-550	1	0	1
4				15.5'	TLC-BT-575	2	0	2
Totals				40	8	32		

Above Field Level is height of fixtures above area shown


Tatlock Park Multipurpose Fields

Summit, NJ

Grid Summary

Name:	Track
Size:	Irregular
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

Illumination Summary

MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average:	7.96
Maximum:	21
Minimum:	1
Avg/Min:	9.42
Max/Min:	24.35
UG (adjacent pts):	0.00
CU:	0.22
No. of Points:	44
FIXTURE INFORMATION	
Applied Circuits:	B
No. of Fixtures:	8
Total Load:	11.28 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.

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

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


SCALE IN FEET 1 : 60



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ILLUMINATION SUMMARY

Equipment List For Areas Shown

Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	Fixture Type	QTY/POLE	THIS GRID	OTHER GRIDS
1	F1	80'	3'	83'	TLC-LED-1500	8	8	0
				18.5'	TLC-BT-575	2	2	0
1	F2	80'	-	80'	TLC-LED-1500	8	8	0
				15.5'	TLC-BT-575	2	2	0
2	F3-F4	70'	-	70'	TLC-LED-1500	7	7	0
				60'	TLC-LED-550	1	0	1
4				15.5'	TLC-BT-575	2	2	0
Totals						40	38	2

Above Field Level is height of fixtures above area shown



SCALE IN FEET 1 : 30



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

Tatlock Park Multipurpose Fields

Summit, NJ

Grid Summary

 Name: Home Bleacher
 Size: 360' x 160'
 Spacing: 10.0' x 10.0'
 Height: 3.0' above grade

Illumination Summary

MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	9.57
Scan Average	9.57
Maximum:	22
Minimum:	4
Avg/Min:	2.41
Max/Min:	5.48
UG (adjacent pts):	1.57
CU:	0.01
No. of Points:	60
Fixture Information	
Applied Circuits:	A,B
No. of Fixtures:	38
Total Load:	46.90 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.

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

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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ILLUMINATION SUMMARY

Equipment List For Areas Shown

Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	Fixture Type	QTY/POLE	THIS GRID	OTHER GRIDS
1	F1	80'	3'	83'	TLC-LED-1500	8	8	0
				18.5'	TLC-BT-575	2	2	0
1	F2	80'	-	80'	TLC-LED-1500	8	8	0
				15.5'	TLC-BT-575	2	2	0
2	F3-F4	70'	-	70'	TLC-LED-1500	7	7	0
				60'	TLC-LED-550	1	0	1
4				15.5'	TLC-BT-575	2	2	0
						40	38	2

Above Field Level is height of fixtures above area shown

Tatlock Park Multipurpose Fields

Summit, NJ

Grid Summary

Name: Visitor Bleacher
Size: 360' x 160'
Spacing: 10.0' x 10.0'
Height: 3.0' above grade

Illumination Summary

MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average:	7.54
Maximum:	12
Minimum:	5
Avg/Min:	1.61
Max/Min:	2.53
UG (adjacent pts):	1.67
CU:	0.00
No. of Points:	20
Fixture Information	
Applied Circuits:	A,B
No. of Fixtures:	38
Total Load:	46.90 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.

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

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



SCALE IN FEET 1 : 20



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ILLUMINATION SUMMARY

Tatlock Park Multipurpose Fields

Summit, NJ

Grid Summary

Name: Walkway
Size: 360' x 160'
Spacing: 30.0' x 10.0'
Height: 3.0' above grade

Illumination Summary

MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	5.57
Scan Average	5.57
Maximum:	11
Minimum:	0
No. of Points:	11
Fixture Information	
Applied Circuits:	D
No. of Fixtures:	2
Total Load:	1.08 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.

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

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



SCALE IN FEET 1 : 40
0' 40' 80'

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ILLUMINATION SUMMARY

Equipment List For Areas Shown

QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	Fixtures				
				ABOVE FIELD LEVEL	Fixture Type	QTY/POLE	This Grid	Other Grids
1	S1	70'	-	70'	TLC-LED-1200	1	1	0
				70'	TLC-LED-1500	3	3	0
				70'	TLC-LED-900	3	3	0
1	S2	70'	-	70'	TLC-LED-1200	3	3	0
				70'	TLC-LED-1500	4	4	0
				73.0'	TLC-LED-1200	3	3	0
1	S3	80'	-7'	73.0'	TLC-LED-1500	4	4	0
				73.0'	TLC-LED-1500	3	3	0
				73.0'	TLC-LED-900	3	3	0
1	S4	80'	-7'	73.0'	TLC-LED-1200	1	1	0
				73.0'	TLC-LED-1500	3	3	0
				73.0'	TLC-LED-900	3	3	0
				Totals		28	28	0

Above Field Level is height of fixtures above area shown



SCALE IN FEET 1 : 50

 0' 50' 100'
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 Pole location(s)  dimensions are relative
to 0,0 reference point(s) 
Tatlock Park Multipurpose Fields

Summit, NJ

Grid Summary

 Name: Upper field
 Size: 330' x 195'
 Spacing: 30.0' x 30.0'
 Height: 3.0' above grade

Illumination Summary

MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	50
Guaranteed Average	50
Scan Average	50.49
Maximum	61
Minimum	30
Avg/Min	1.71
Guaranteed Max/Min	2.5
Max/Min	2.08
UG (adjacent pts)	1.84
CU	0.81
No. of Points	77
Fixture Information	
Applied Circuits	C
No. of Fixtures	28
Total Load	34.38 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.

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

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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ILLUMINATION SUMMARY

Equipment List For Areas Shown

QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	Fixtures				
				ABOVE FIELD LEVEL	Fixture Type	QTY/POLE	This Grid	Other Grids
1	F1	80'	3'	83'	TLC-LED-1500	8	8	0
				18.5'	TLC-BT-575	2	2	0
1	F2	80'	-	80'	TLC-LED-1500	8	8	0
				15.5'	TLC-BT-575	2	2	0
2	F3-F4	70'	-	70'	TLC-LED-1500	7	7	0
				60'	TLC-LED-550	1	1	0
				15.5'	TLC-BT-575	2	2	0
1	S1	70'	27'	97'	TLC-LED-1200	1	1	0
				97'	TLC-LED-1500	3	3	0
				97'	TLC-LED-900	3	3	0
1	S2	70'	27'	97'	TLC-LED-1200	3	3	0
				97'	TLC-LED-1500	4	4	0
1	S3	80'	20'	100.0'	TLC-LED-1200	3	3	0
				100.0'	TLC-LED-1500	4	4	0
1	S4	80'	20'	100.0'	TLC-LED-1200	1	1	0
				100.0'	TLC-LED-1500	3	3	0
				100.0'	TLC-LED-900	3	3	0
8	Totals			68	68	0		

Above Field Level is height of fixtures above area shown


 SCALE IN FEET 1 : 200


 0' 200' 400'
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 Pole location(s)  dimensions are relative
 to 0,0 reference point(s) 
Tatlock Park Multipurpose Fields

Summit, NJ

Grid Summary

 Name: Property Spill @ 3ft.
 Spacing: 30.0'
 Height: 3.0' above grade

Illumination Summary

INITIAL HORIZONTAL FOOTCANDLES	
Entire Grid	0.00
Scan Average:	0.00
Maximum:	0
Minimum:	0
CU:	0.00
No. of Points:	52
Fixture Information	
Applied Circuits:	A,B,C,D
No. of Fixtures:	68
Total Load:	82.36 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.

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

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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ILLUMINATION SUMMARY

Tatlock Park Multipurpose Fields

Summit, NJ

Equipment Layout

INCLUDES:

- Investors Field
- Track
- Upper field

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

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

Equipment List For Areas Shown

QTY	STRUCTURE ID	SIZE	GLOBAL ELEVATION	Fixtures	
				Fixture Type	Qty/Pole
1	F1	80'	3'	83' TLC-LED-1500	8
				18.5' TLC-BT-575	2
1	F2	80'	-	80' TLC-LED-1500	8
				15.5' TLC-BT-575	2
2	F3-F4	70'	-	70' TLC-LED-1500	7
				60' TLC-LED-550	1
				15.5' TLC-BT-575	2
1	S1	70'	27'	97' TLC-LED-1200	1
				97' TLC-LED-1500	3
				97' TLC-LED-900	3
1	S2	70'	27'	97' TLC-LED-1200	3
				97' TLC-LED-1500	4
1	S3	80'	20'	100.0' TLC-LED-1200	3
				100.0' TLC-LED-1500	4
1	S4	80'	20'	100.0' TLC-LED-1200	1
				100.0' TLC-LED-1500	3
				100.0' TLC-LED-900	3
8				Totals	68

Above Global Level is height of fixtures above design (0,0,0)

Single Fixture Amperage Draw Chart

Driver Specifications (.90 min power factor)	Line Amperage Per Fixture (max draw)					
	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)
Single Phase Voltage	8.4	7.9	7.3	6.3	5.0	4.6
TLC-LED-1500	8.4	7.9	7.3	6.3	5.0	4.6
TLC-LED-1200	6.9	6.5	6.0	5.2	4.2	3.8
TLC-LED-900	5.2	4.9	4.5	3.9	3.1	2.9
TLC-BT-575	3.3	3.2	2.9	2.5	2.0	1.8
TLC-LED-550	3.2	3.0	2.8	2.4	1.9	1.8



0' 200' 400'

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EQUIPMENT LAYOUT