

Newton South High School

Newton, MA

Lighting System

Pole / Fixture Summary						
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
S1, S3	70'	70'	5	TLC-LED-1200	5.85 kW	A
		16'	2	TLC-BT-575	1.15 kW	B
S2	70'	70'	7	TLC-LED-1200	8.19 kW	A
S4, S6	60'	60'	3	TLC-LED-1200	3.51 kW	A
		60'	3	TLC-LED-900	2.67 kW	A
		16'	2	TLC-BT-575	1.15 kW	B
S5	60'	60'	3	TLC-LED-1200	3.51 kW	A
		60'	4	TLC-LED-900	3.56 kW	A
6			44		43.92 kW	

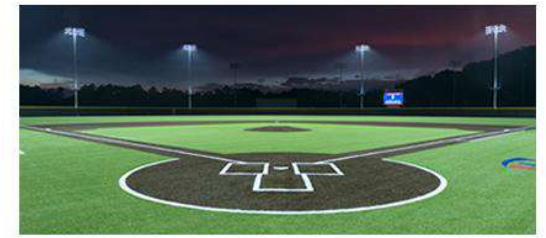
Circuit Summary			
Circuit	Description	Load	Fixture Qty
A	Field	39.32 kW	36
B	Balltrackers	4.6 kW	8

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	26
TLC-LED-900	LED 5700K - 75 CRI	890W	89,600	>120,000	>120,000	>120,000	10
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	8

Light Level Summary

Calculation Grid Summary								
Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
East Property Line	Horizontal	0.84	0	4.22	0.00		A	36
East Property Line	Max Candela (by Fixture)	14444	0	54517	0.00		A	36
East Property Line	Max Vertical Illuminance Metric	1.46	0	7.19	0.00		A	36
Football	Horizontal Illuminance	51.6	39	64	1.63	1.32	A,B	44
Soccer Spill @ 150'	Horizontal Illuminance	0.02	0	0.09	0.00		A	36
Soccer Spill @ 150'	Max Candela Metric	988	0	4245	0.00		A	36
Soccer Spill @ 150'	Max Vertical Illuminance Metric	0.04	0	0.25	0.00		A	36
Soccer	Horizontal Illuminance	51.5	40	64	1.59	1.29	A	36
South Property Line	Horizontal	0.03	0	0.17	0.00		A	36
South Property Line	Max Candela (by Fixture)	423	0	1571	0.00		A	36
South Property Line	Max Vertical Illuminance Metric	0.04	0	0.19	0.00		A	36
Zero Grid	Horizontal Illuminance	6.57	0	55	23856.78		A	36

From Hometown to Professional



We Make It Happen®

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2021 Musco Sports Lighting, LLC.

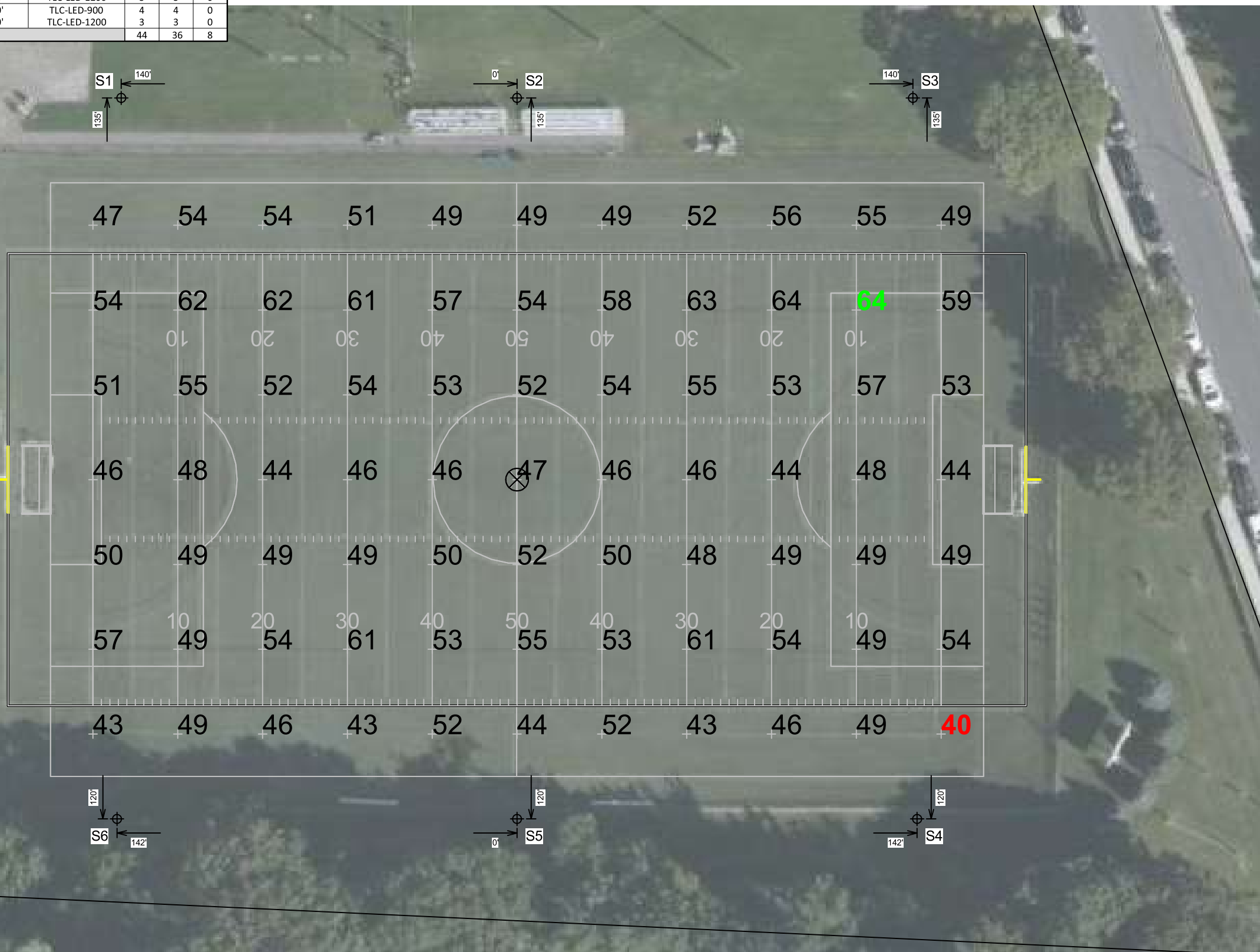
EQUIPMENT LIST FOR AREAS SHOWN									
Pole				Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
2	S1, S3	70'	-	15.5'	TLC-BT-575	2	0	2	
				70'	TLC-LED-1200	5	5	0	
1	S2	70'	-	70'	TLC-LED-1200	7	7	0	
2	S4, S6	60'	-	60'	TLC-LED-900	3	3	0	
				15.5'	TLC-BT-575	2	0	2	
1	S5	60'	-	60'	TLC-LED-1200	3	3	0	
				60'	TLC-LED-900	4	4	0	
6	TOTALS			60'	TLC-LED-1200	3	3	0	
						44	36	8	

Newton South High School

Newton, MA

GRID SUMMARY	
Name:	Soccer
Size:	330' x 210'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Guaranteed Average:	50
Scan Average:	51.49
Maximum:	64
Minimum:	40
Avg / Min:	1.28
Guaranteed Max / Min:	2
Max / Min:	1.59
UG (adjacent pts):	1.41
CU:	0.80
No. of Points:	77
LUMINAIRE INFORMATION	
Applied Circuits:	A
No. of Luminaires:	36
Total Load:	39.32 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.



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



We Make It Happen.

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2021 Musco Sports Lighting, LLC.

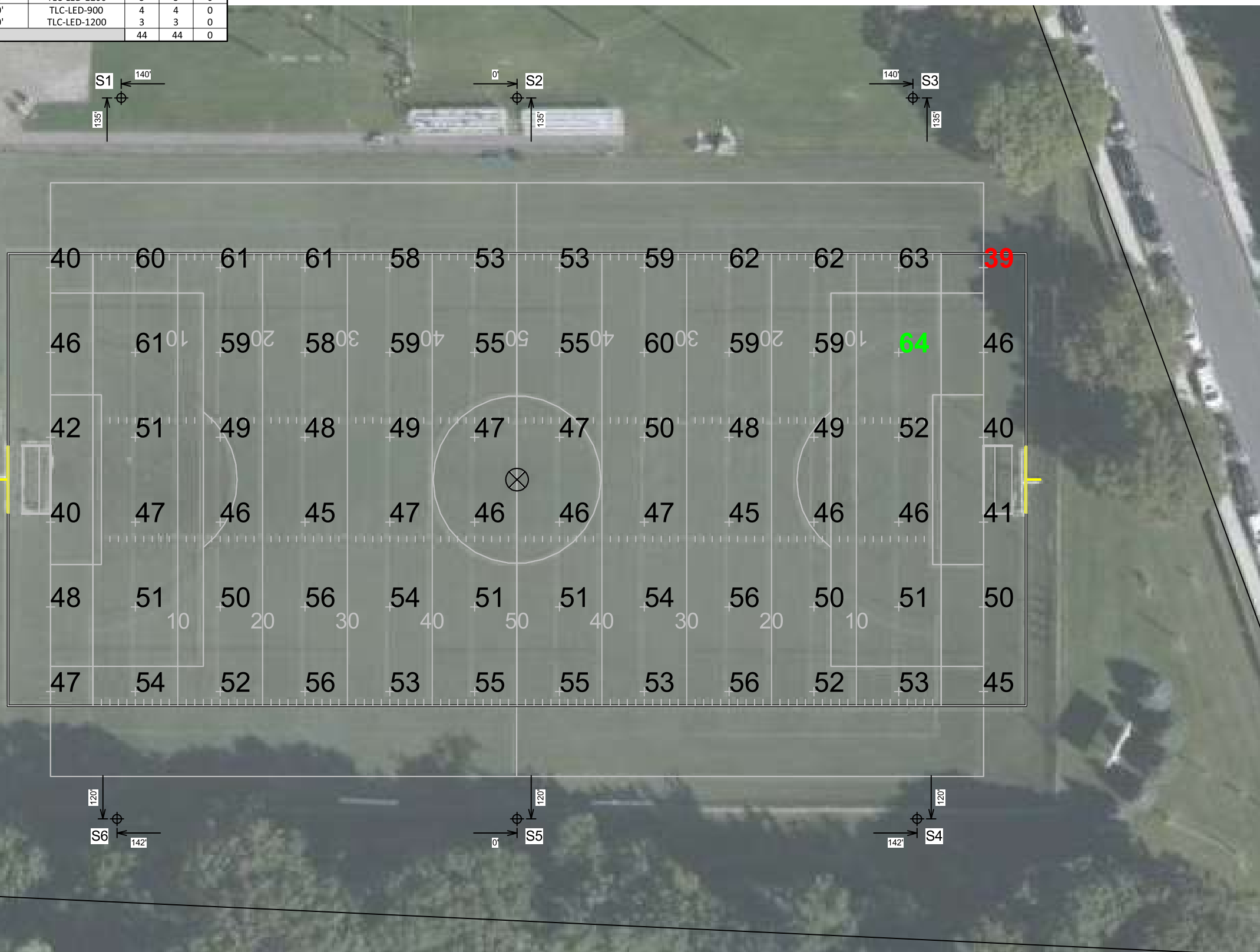
EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	S1, S3	70'	0'	15.48'	TLC-BT-575	2	2	0
				70'	TLC-LED-1200	5	5	0
1	S2	70'	0'	70'	TLC-LED-1200	7	7	0
2	S4, S6	60'	0'	60'	TLC-LED-900	3	3	0
				15.48'	TLC-BT-575	2	2	0
1	S5	60'	0'	60'	TLC-LED-1200	3	3	0
				60'	TLC-LED-900	4	4	0
6	TOTALS			60'	TLC-LED-900	3	3	0
				60'	TLC-LED-1200	3	3	0
6	TOTALS					44	44	0

Newton South High School
Newton, MA

GRID SUMMARY	
Name:	Football
Size:	360' x 160'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Guaranteed Average:	50
Scan Average:	51.64
Maximum:	64
Minimum:	39
Avg / Min:	1.32
Guaranteed Max / Min:	2
Max / Min:	1.63
UG (adjacent pts):	1.60
CU:	0.69
No. of Points:	72
LUMINAIRE INFORMATION	
Applied Circuits:	A, B
No. of Luminaires:	44
Total Load:	43.92 kW

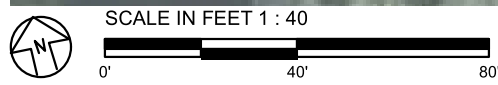


Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

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.



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



We Make It Happen.

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2021 Musco Sports Lighting, LLC.

EQUIPMENT LIST FOR AREAS SHOWN								
Pole			Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	S1, S3	70'	0'	15.52'	TLC-BT-575	2	0	2
				70'	TLC-LED-1200	5	5	0
1	S2	70'	0'	70'	TLC-LED-1200	7	7	0
2	S4, S6	60'	0'	60'	TLC-LED-900	3	3	0
				15.52'	TLC-BT-575	2	0	2
				60'	TLC-LED-1200	3	3	0
1	S5	60'	0'	60'	TLC-LED-900	4	4	0
				60'	TLC-LED-1200	3	3	0
6	TOTALS					44	36	8

Newton South High School

Newton, MA

GRID SUMMARY	
Name:	Zero Grid
Size:	660' x 470'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average:	6.57
Maximum:	55
Minimum:	0
Avg / Min:	2876.37
Max / Min:	23856.78
UG (adjacent pts):	41.93
CU:	0.26
No. of Points:	1743
LUMINAIRE INFORMATION	
Applied Circuits:	A
No. of Luminaires:	36
Total Load:	39.32 kW

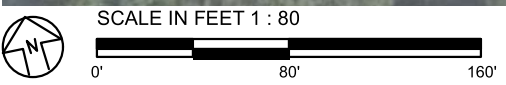


Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

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.



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



Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2021 Musco Sports Lighting, LLC.

ILLUMINATION SUMMARY

Newton South High School
Newton, MA

EQUIPMENT LAYOUT

INCLUDES:

- Football
- Soccer
- Zero Grid

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

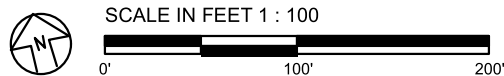
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

EQUIPMENT LIST FOR AREAS SHOWN

QTY	Pole			Luminaires		QTY / POLE
	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	
2	S1, S3	70'	-	15.5' 70'	TLC-BT-575 TLC-LED-1200	2 5
1	S2	70'	-	70'	TLC-LED-1200	7
2	S4, S6	60'	-	60' 15.5' 60'	TLC-LED-900 TLC-BT-575 TLC-LED-1200	3 2 3
1	S5	60'	-	60' 60'	TLC-LED-900 TLC-LED-1200	4 3
6	TOTALS					44

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)	380 (60)	480 (60)
Single Phase Voltage	7.0	6.6	6.1	5.2	4.2	4.0	3.0
TLC-LED-1200	5.3	5.0	4.6	4.0	3.2	2.9	2.3
TLC-LED-900	3.4	3.2	2.9	2.5	2.0	1.8	1.5



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



We Make It Happen.

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2021 Musco Sports Lighting, LLC.