THE MILLER SCHOOL - NEW ENTRANCE

ROAD / STREAM BUFFER MITIGATION / SOIL EROSION & SEDIMENT CONTROL / SITE PLAN

TMP 72-32, SAMUEL MILLER DISTRICT, ALBEMARLE COUNTY, VIRGINIA

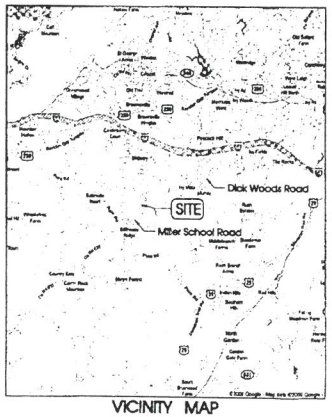
SHEET INDEX

PROJECT/SITE DATA

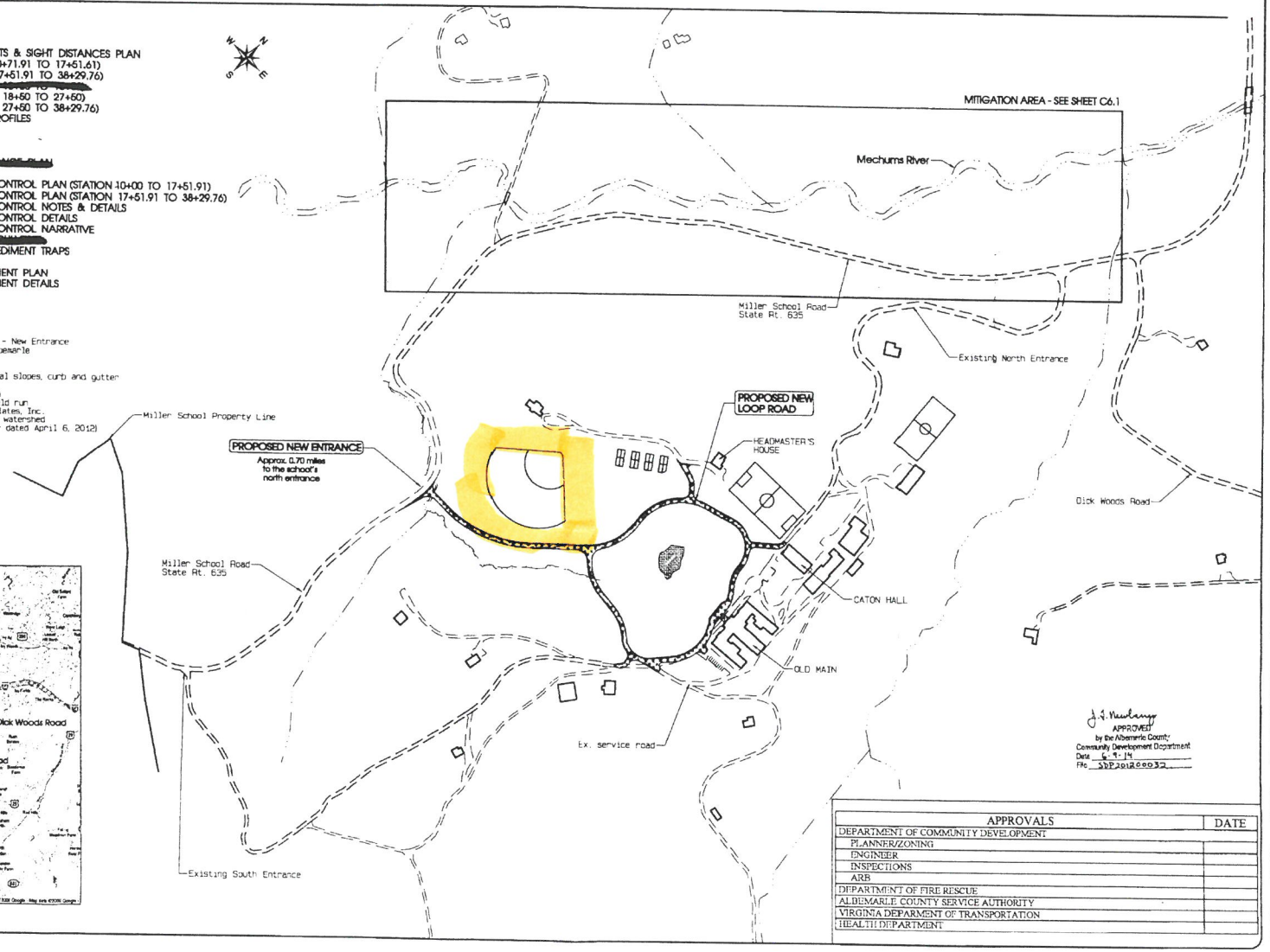
Name of Development: The Miller School - New Entrance
Name of Owner: The Miller School of Albemarle
Tax Map/Parcel Number: TMP 72-32
Zoning: Rural Areas, RA
Waivers requested: stream buffer, critical slopes, curb and gutter
Magisterial District: Samuel Miller
County/State: Albemarle County, Virginia
Source of Topography: County GISand field run
Source of Survey: Roger W. Ray & Associates, Inc.
The site is located within a reservoir watershed
Traffic information (from school letter dated April 6, 2012)
Weekdays - 136 vtpd
Weekends - 50 vtpd

LEGEND

Ex. - Existing
T.B.R. - To Be Removed
dbl. - double



VICINITY MAP



APPROVED
by the Albemarle County
Community Development Department
Date 6-9-14
File SDP201200032

APPROVALS	DATE
DEPARTMENT OF COMMUNITY DEVELOPMENT	
PLANNER/ZONING	
ENGINEER	
INSPECTIONS	
ARB	
DEPARTMENT OF FIRE RESCUE	
ALBEMARLE COUNTY SERVICE AUTHORITY	
VIRGINIA DEPARMENT OF TRANSPORTATION	
HEALTH DEPARTMENT	

DATE
Nov. 18, 2009

REVISIONS
Jan. 11, 2010
July 7, 2010
February 6, 2012
April 30, 2012
November 30, 2012
January 9, 2013
January 25, 2013
April 16, 2013
May 30, 2013
June 10, 2013
June 9, 2014

THE MILLER SCHOOL NEW ENTRANCE

COVER SHEET

SCALE
1"=200'

COMMONWEALTH OF VIRGINIA
BRIAN P. SMITH
CERTIFICATE No. 019407
PROFESSIONAL ENGINEER

BRIAN P. SMITH, PE
CIVIL ENGINEERING, INC.
GOLF COURSE DESIGN
SITE DESIGN - LAND PLANNING
4835 Three Chopt Road
Troy, VA 22974
434.296.3644
bpspe@embarqmail.com

JOB NUMBER
09-011-00

DWG. NAME
Miller School 2.pro

SHEET
C1.0

Miller School of Albemarle

Charlottesville, VA

Lighting System

Pole / Fixture Summary

Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
A1	70'	70'	5	TLC-LED-1500	7.15 kW	A
		15'	1	TLC-BT-575	0.58 kW	A
A2	70'	70'	5	TLC-LED-1500	7.15 kW	A
		15'	1	TLC-BT-575	0.58 kW	A
		70'	2	TLC-LED-600	1.16 kW	A
B1-B2	80'	80'	1	TLC-LED-1200	1.17 kW	A
		80'	6	TLC-LED-1500	8.58 kW	A
		15'	1	TLC-BT-575	0.58 kW	A
C1-C2	70'	70'	4	TLC-LED-1200	4.68 kW	A
		15'	1	TLC-BT-575	0.58 kW	A
D1-D2	70'	70'	4	TLC-LED-1200	4.68 kW	A
		16'	1	TLC-BT-575	0.58 kW	A
8			***50***		***58.28 kW***	

Circuit Summary

Circuit	Description	Load	Fixture Qty
A		58.28 kW	50

Fixture Type Summary

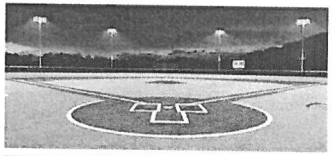
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-1500	LED 5700K - 75 CRI	1430W	160,000	>81,000	>81,000	>81,000	22
TLC-LED-1200	LED 5700K - 75 CRI	1170W	136,000	>81,000	>81,000	>81,000	18
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>81,000	>81,000	>81,000	8
TLC-LED-600	LED 5700K - 75 CRI	580W	65,600	>81,000	>81,000	>81,000	2

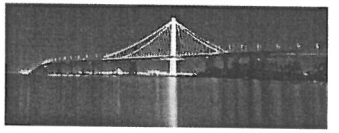
Light Level Summary

Calculation Grid Summary

Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Baseball (Infield)	Horizontal Illuminance	62	44	81	1.82	1.41	A	50
Baseball (Outfield)	Horizontal Illuminance	40.1	27	56	2.05	1.48	A	50
Bleachers	Horizontal Illuminance	25.4	7	47	6.51	3.63	A	50
Parking	Horizontal Illuminance	5.43	1	11	7.74	5.43	A	50

From Hometown to Professional





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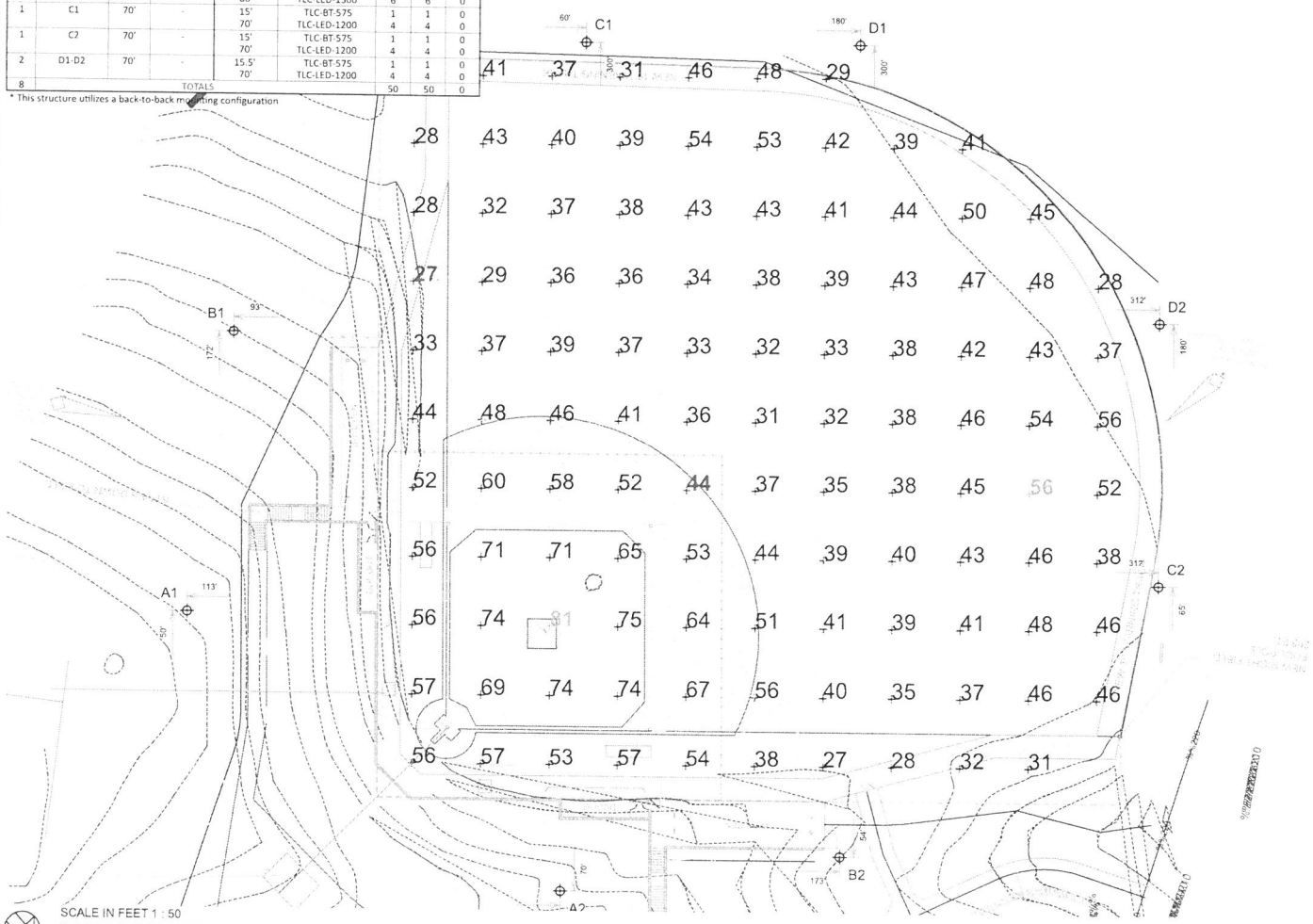
EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	A1	70'	30'	45'	TLC-BT-575	1	1	0
				100'	TLC-LED-1500	5	5	0
1	A2	70'	14'	84'	TLC-LED-600	2*	2	0
				29'	TLC-BT-575	1	1	0
				84'	TLC-LED-1500	5	5	0
1	B1	80'	14'	94'	TLC-LED-1200	1	1	0
				29'	TLC-BT-575	1	1	0
				94'	TLC-LED-1500	6	6	0
1	B2	80'	-	80'	TLC-LED-1200	1	1	0
				15'	TLC-BT-575	1	1	0
				80'	TLC-LED-1500	6	6	0
1	C1	70'	-	15'	TLC-BT-575	1	1	0
				70'	TLC-LED-1200	4	4	0
1	C2	70'	-	15'	TLC-BT-575	1	1	0
				70'	TLC-LED-1200	4	4	0
2	D1-D2	70'	-	15.5'	TLC-BT-575	1	1	0
				70'	TLC-LED-1200	4	4	0
8	TOTALS					50	50	0

* This structure utilizes a back-to-back mounting configuration



SCALE IN FEET 1 : 50

0' 50' 100'

ENGINEERED DESIGN By: Ryan A. Marsh, LC • File #182914A • 02-May-19

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

Miller School of Albemarle

Charlottesville, VA

GRID SUMMARY

Name:	**Baseball**
Size:	Irregular 293' / 351' / 296'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Infield	Outfield
Guaranteed Average:	**60**	**40**
Scan Average:	62.04	40.07
Maximum:	81	56
Minimum:	44	27
Avg / Min:	1.40	1.47
Guaranteed Max / Min:	**2**	**2.5**
Max / Min:	1.82	2.05
UG (adjacent pts):	1.40	1.70
CU:	0.71	
No. of Points:	25	87

LUMINAIRE INFORMATION

Color / CRI:	5700K - 75 CRI
Luminaire Output:	160,000 / 136,000 / 52,000 / 65,600 lumens
No. of Luminaires:	**50**
Total Load:	58.28 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1500	>81,000	>81,000	>81,000
TLC-LED-1200	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000
TLC-LED-600	>81,000	>81,000	>81,000

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.

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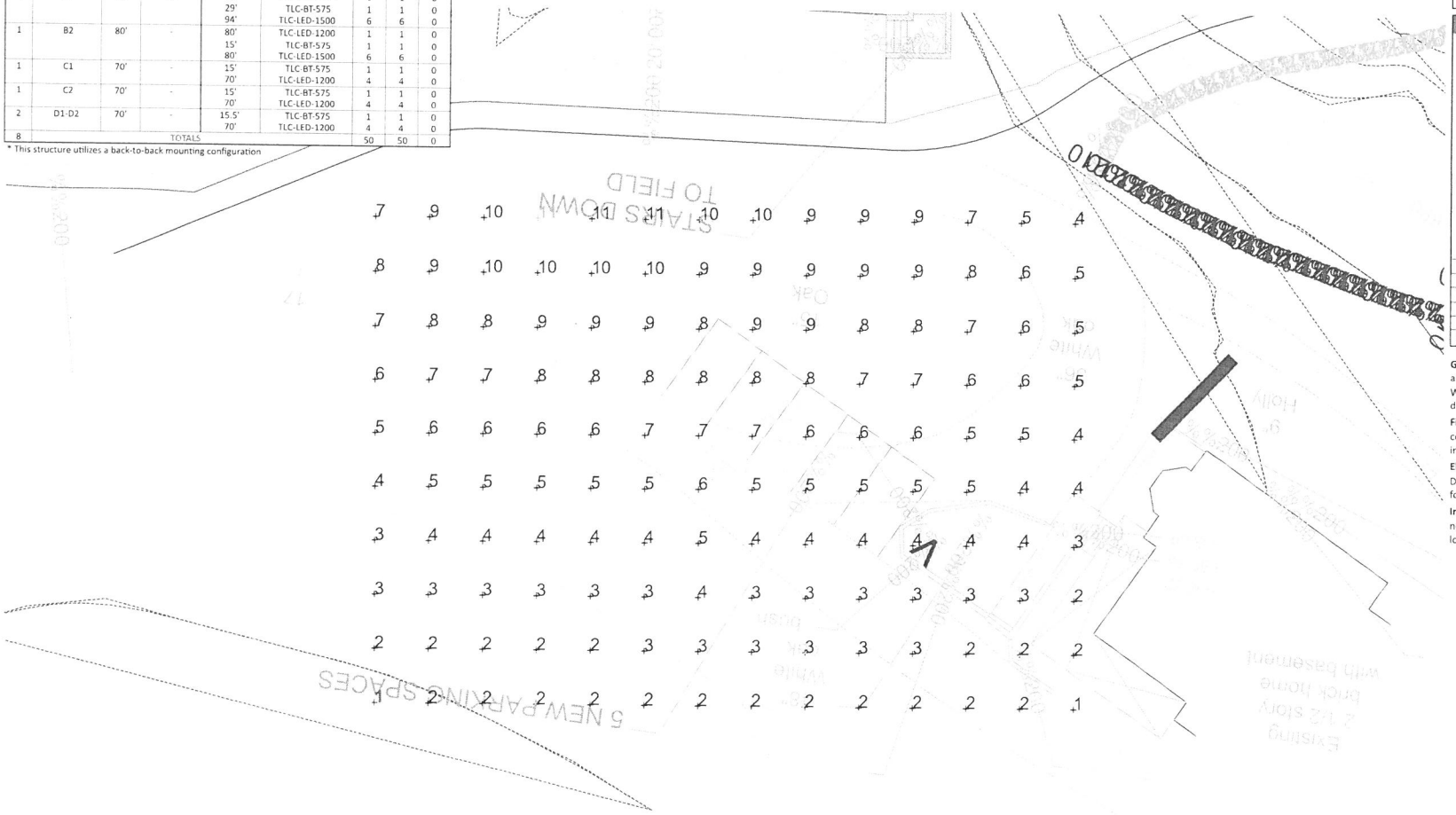
ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	A1	70'	30'	45'	TLC-BT-575	1	1	0
				100'	TLC-LED-1500	5	5	0
1	A2	70'	14'	84'	TLC-LED-600	2*	2	0
				29'	TLC-BT-575	1	1	0
				84'	TLC-LED-1500	5	5	0
1	B1	80'	14'	94'	TLC-LED-1200	1	1	0
				29'	TLC-BT-575	1	1	0
				94'	TLC-LED-1500	6	6	0
1	B2	80'	-	80'	TLC-LED-1200	1	1	0
				15'	TLC-BT-575	1	1	0
				80'	TLC-LED-1500	6	6	0
1	C1	70'	-	15'	TLC-BT-575	1	1	0
				70'	TLC-LED-1200	4	4	0
1	C2	70'	-	15'	TLC-BT-575	1	1	0
				70'	TLC-LED-1200	4	4	0
2	D1-D2	70'	-	15.5'	TLC-BT-575	1	1	0
				70'	TLC-LED-1200	4	4	0
8	TOTALS					50	50	0

* This structure utilizes a back-to-back mounting configuration



Miller School of Albemarle

Charlottesville, VA

GRID SUMMARY

Name:	Parking
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Scan Average:	**5.43**
Maximum:	11
Minimum:	1
Avg / Min:	3.93
Max / Min:	**7.74**
UG (adjacent pts):	1.52
CU:	0.01
No. of Points:	140

LUMINAIRE INFORMATION

Color / CRI:	5700K - 75 CRI
Luminaire Output:	160,000 / 136,000 / 52,000 / 65,600 lumens
No. of Luminaires:	**50**
Total Load:	58.28 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1500	>81,000	>81,000	>81,000
TLC-LED-1200	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000
TLC-LED-600	>81,000	>81,000	>81,000

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.

SCALE IN FEET 1 : 20

0' 20' 40'

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

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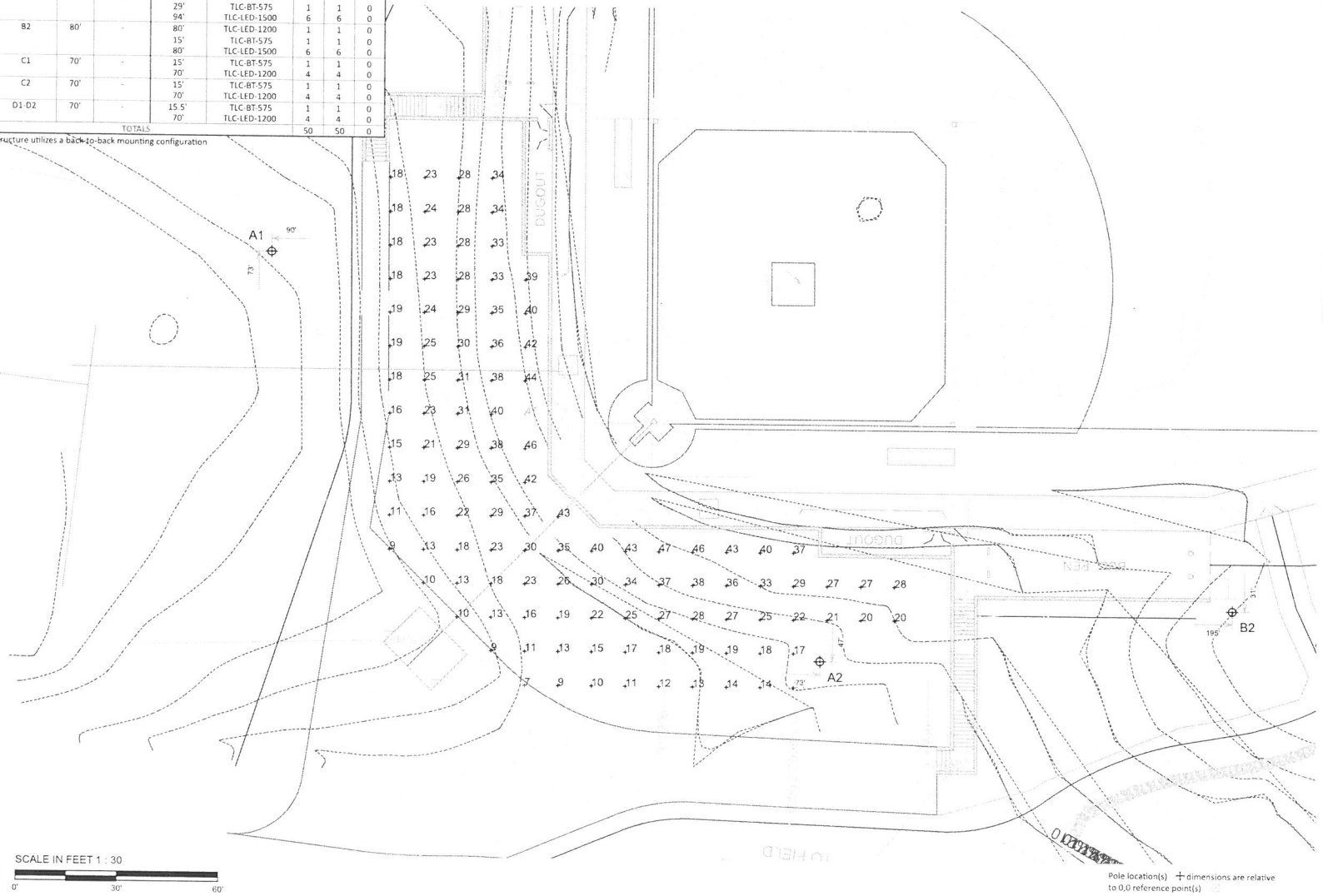
ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	A1	70'	30'	45'	TLC-BT-575	1	1	0
				100'	TLC-LED-1500	5	5	0
1	A2	70'	14'	84'	TLC-LED-600	2*	2	0
				29'	TLC-BT-575	1	1	0
				84'	TLC-LED-1500	5	5	0
1	B1	80'	14'	94'	TLC-LED-1200	1	1	0
				29'	TLC-BT-575	1	1	0
				94'	TLC-LED-1500	6	6	0
1	B2	80'	-	80'	TLC-LED-1200	1	1	0
				15'	TLC-BT-575	1	1	0
				80'	TLC-LED-1500	6	6	0
1	C1	70'	-	15'	TLC-BT-575	1	1	0
				70'	TLC-LED-1200	4	4	0
1	C2	70'	-	15'	TLC-BT-575	1	1	0
				70'	TLC-LED-1200	4	4	0
2	D1-D2	70'	-	15.5'	TLC-BT-575	1	1	0
				70'	TLC-LED-1200	4	4	0
8	TOTALS					50	50	0

* This structure utilizes a back-to-back mounting configuration



SCALE IN FEET 1 : 30

0' 30' 60'

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

ENGINEERED DESIGN By: Ryan A. Marsh, LC • File #182914A • 02-May-19

Miller School of Albemarle

Charlottesville, VA

GRID SUMMARY

Name:	**Bleachers**
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Scan Average:	**25.38**
Maximum:	47
Minimum:	7
Avg / Min:	3.53
Max / Min:	**6.51**
UG (adjacent pts):	1.51
CU:	0.05
No. of Points:	114

LUMINAIRE INFORMATION

Color / CRI:	5700K - 75 CRI
Luminaire Output:	160,000 / 136,000 / 52,000 / 65,600 lumens
No. of Luminaires:	**50**
Total Load:	58.28 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1500	>81,000	>81,000	>81,000
TLC-LED-1200	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000
TLC-LED-600	>81,000	>81,000	>81,000

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.

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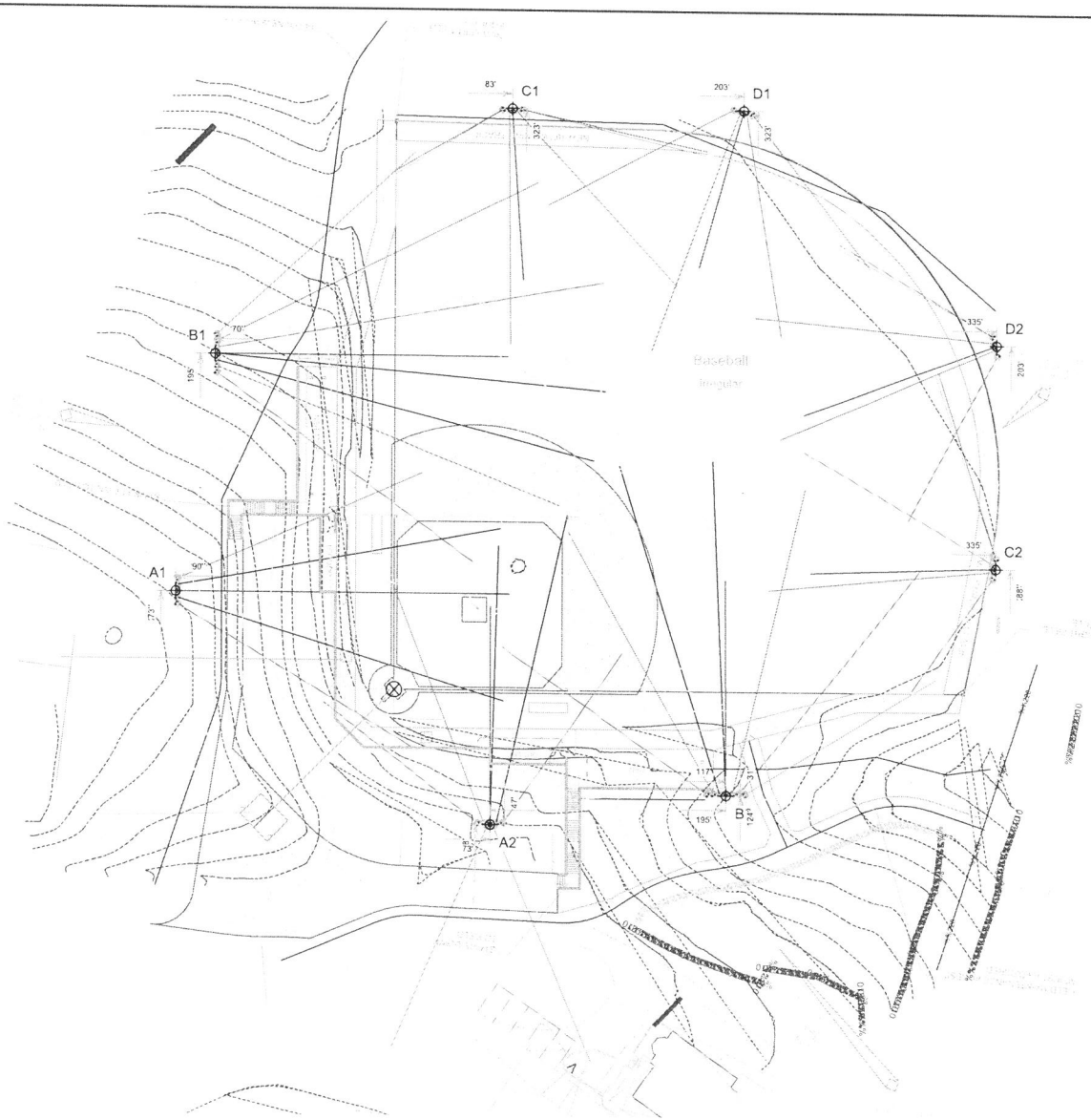
ILLUMINATION SUMMARY



Miller School of Albemarle

Charlottesville, VA

EQUIPMENT LAYOUT

INCLUDES:

- Baseball
- Bleachers
- Parking

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

Pole				Luminaires		
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE
1	A1	70'	30'	45'	TLC-BT-575	1
				100'	TLC-LED-1500	5
1	A2	70'	14'	84'	TLC-LED-600	2*
				29'	TLC-BT-575	1
				84'	TLC-LED-1500	5
1	B1	80'	14'	94'	TLC-LED-1200	1
				29'	TLC-BT-575	1
				94'	TLC-LED-1500	6
1	B2	80'	-	80'	TLC-LED-1200	1
				15'	TLC-BT-575	1
				80'	TLC-LED-1500	6
1	C1	70'	-	15'	TLC-BT-575	1
				70'	TLC-LED-1200	4
1	C2	70'	-	15'	TLC-BT-575	1
				70'	TLC-LED-1200	4
2	D1-D2	70'	-	15.5'	TLC-BT-575	1
				70'	TLC-LED-1200	4
8	TOTALS					50

* 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 (60)	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
TLC-LED-1200	7.0	6.6	6.1	5.2	4.2	3.8	3.0
TLC-BT-575	3.4	3.2	2.9	2.5	2.0	1.8	1.5
TLC-LED-600-A	3.4	3.2	3.0	2.6	2.0	1.9	1.5

SCALE IN FEET 1 : 60

0' 60' 120'

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

ENGINEERED DESIGN By: Ryan A. Marsh, LC • File #182914A • 02-May-19

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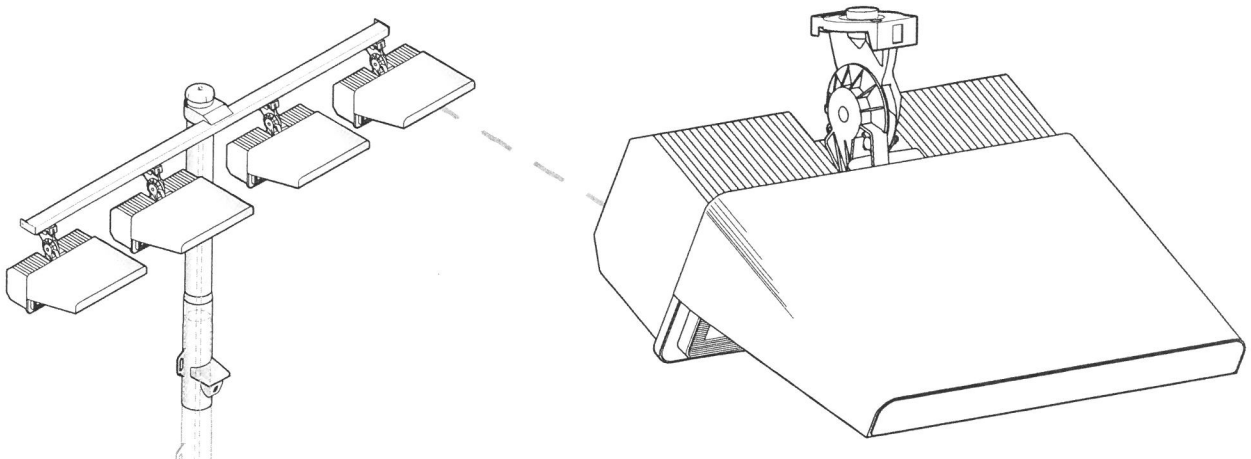
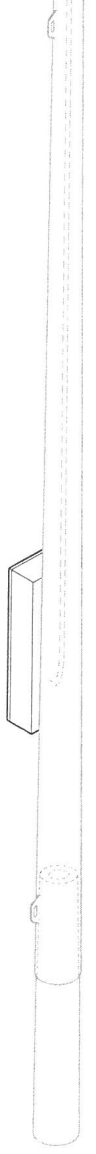
Luminaire and Driver – TLC-LED-1500





Luminaire Data

Weight (luminaire)	67 lb (30 kg)
UL listing number	E338094 (pending)
UL listed for USA / Canada	UL1598 CSA-C22.2 No.250.0 (pending)
CE Declaration	LVD, EMC, RoHS
Ingress protection, luminaire	IP65
Material and finish	Aluminum, powder-coat painted
Wind speed rating (aiming only)	150 mi/h (67 m/s)
UL, IEC ambient temperature rating, luminaire	50°C (122°F)

Photometric Characteristics

Projected lumen maintenance per IES TM-21-11	
L90 (13.5k)	>81,000 h
L80 (13.5k)	>81,000 h
L70 (13.5k)	>81,000 h
CIE correlated color temperature	5700 K
Color rendering index (CRI)	75 typ, 70 min
Lumens[1]	156,100

Footnotes:

1) Incorporates appropriate dirt depreciation factor for life of luminaire.

All components from foundation to poletop are designed to work together in Light-Structure System™ to ensure reliable, trouble-free operation.

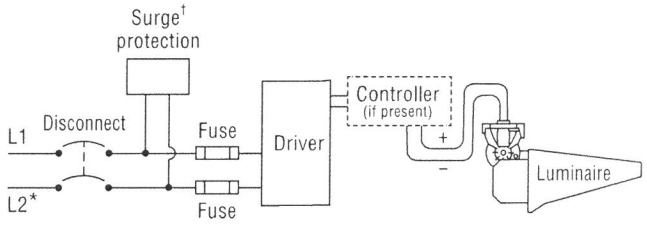
Luminaire and Driver – TLC-LED-1500

Driver Data

Electrical Data

Rated wattage[1]	
Per driver	1500 W
Per luminaire	1500 W
Number of luminaires per driver	1
Starting (inrush) current	<40 A, 256 µs
Fuse rating	15 A
UL, IEC ambient temperature rating, electrical components enclosure	45°C (113°F) - pending
Ingress protection, electrical components enclosure	IP54
Efficiency	95%
Dimming mode	optional
Range, energy consumption	11 – 100%
Range, light output	16 – 100%

Typical Wiring



* If L2 (com) is neutral then not switched or fused.
† Not present if indoor installation.

	200 Vac 50/60 Hz	208 Vac 60 Hz	220 Vac 50/60 Hz	230 Vac 50 Hz	240 Vac 50/60 Hz	277 Vac 60 Hz	347 Vac 60 Hz	380 Vac 50/60 Hz	400 Vac 50 Hz	415 Vac 50 Hz	480 Vac 60 Hz
Max operating current per luminaire[2]	9.30 A	8.95 A	8.46 A	8.09 A	7.75 A	6.72 A	5.36 A	4.90 A	4.65 A	4.49 A	3.88 A

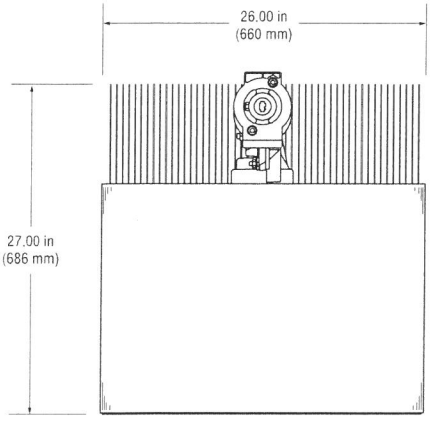
Footnotes:

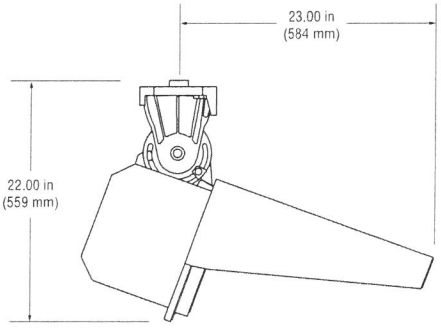
1) Rated wattage is the power consumption, including driver efficiency losses, at stabilized operation in 25°C ambient temperature environment.

2) Operating current includes allowance for 0.90 minimum power factor, operating temperature, and LED light source manufacturing tolerances.

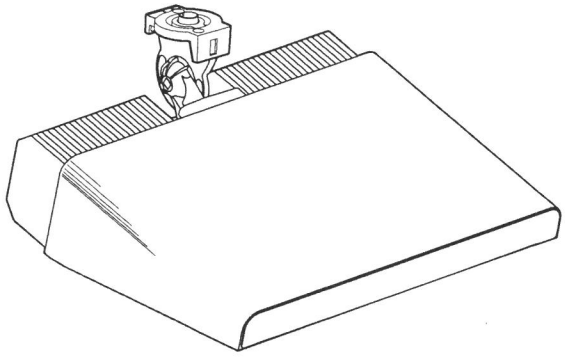
Notes

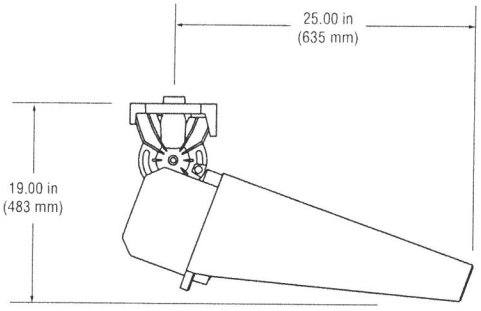
1. Use thermal magnetic HID-rated or D-curve circuit breakers.
2. See *Musco Control System Summary* for circuit information.

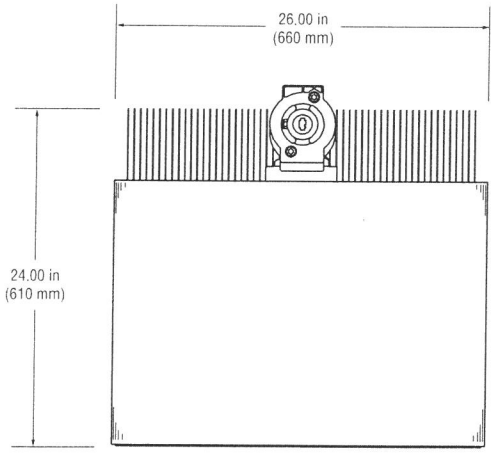




Datasheet: **TLC-LED-1200 Luminaire and Driver**







Luminaire Data

Weight (luminaire)	45 lb (20 kg)
UL listing number	E338094 (pending)
UL listed for USA / Canada	UL1598 CSA-C22.2 No.250.0 (pending)
CE Declaration	LVD, EMC, RoHS
Ingress protection, luminaire	IP65
Material and finish	Aluminum, powder-coat painted
Wind speed rating (aiming only)	150 mi/h (67 m/s)
UL, IEC ambient temperature rating, luminaire	50°C (122°F)

Photometric Characteristics

Projected lumen maintenance per IES TM-21-11	
L90 (13.5k)	>81,000 h
L80 (13.5k)	>81,000 h
L70 (13.5k)	>81,000 h
CIE correlated color temperature	5700 K
Color rendering index (CRI)	75 typ, 70 min
Lumens[1]	132,300

Footnotes:

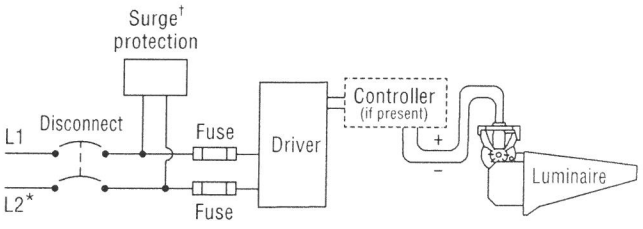
1) Incorporates appropriate dirt depreciation factor for life of luminaire.

Driver Data

Electrical Data

Rated wattage[1]	
Per driver	1230 W
Per luminaire	1230 W
Number of luminaires per driver	1
Starting (inrush) current	<40 A, 256 µs
Fuse rating	15 A
UL, IEC ambient temperature rating, electrical components enclosure	50°C (122°F)
Ingress protection, electrical components enclosure	IP54
Efficiency	95%
Dimming mode	optional
Range, energy consumption	13 – 100%
Range, light output	18 – 100%

Typical Wiring



* If L2 (com) is neutral then not switched or fused.
† Not present if indoor installation.

	200 Vac 50/60 Hz	208 Vac 60 Hz	220 Vac 50/60 Hz	230 Vac 50 Hz	240 Vac 50/60 Hz	277 Vac 60 Hz	347 Vac 60 Hz	380 Vac 50/60 Hz	400 Vac 50 Hz	415 Vac 50 Hz	480 Vac 60 Hz
Max operating current per luminaire[2]	7.60 A	7.30 A	6.91 A	6.61 A	6.33 A	5.49 A	4.38 A	4.00 A	3.80 A	3.66 A	3.17 A

Footnotes:

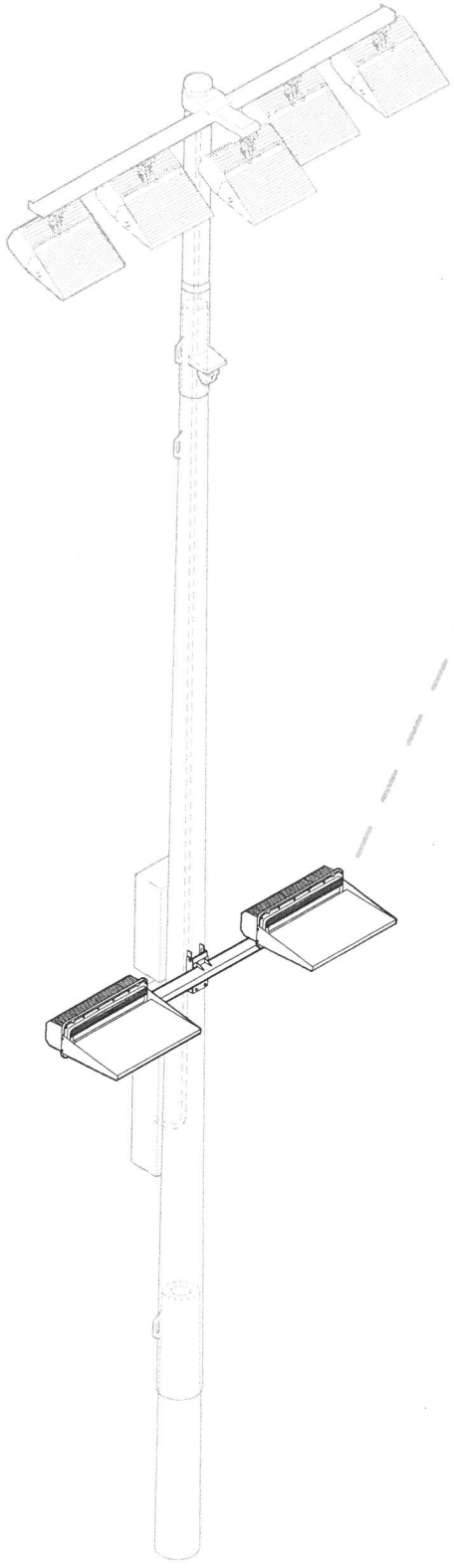
1) Rated wattage is the power consumption, including driver efficiency losses, at stabilized operation in 25°C ambient temperature environment.

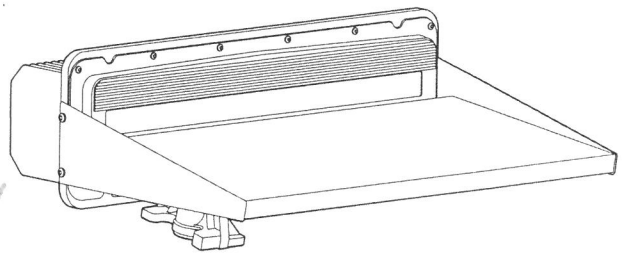
2) Operating current includes allowance for 0.90 minimum power factor, operating temperature, and LED light source manufacturing tolerances.

Notes

1. Use thermal magnetic HID-rated or D-curve circuit breakers.
2. See *Musco Control System Summary* for circuit information.

Luminaire and Driver Components – TLC-BT-575





Luminaire Data

Weight (luminaire)	34 lb (15 kg)
UL listing number	E338094
UL Listed for USA / Canada	UL1598 CSA-C22.2 No.250.0
Ingress protection, luminaire	IP65
Material and finish	Aluminum, powder-coat painted
Wind speed rating (aiming only)	150 mi/h (67 m/s)

Photometric Characteristics

Projected lumen maintenance per IES TM-21-11	
L90 (13.5k)	>81,000 h
L80 (13.5k)	>81,000 h
L70 (13.5k)	>81,000 h
CIE correlated color temperature	5700 K
Color rendering index (CRI)	75 typ, 70 min
Lumens[1]	52,000

Footnotes:

1) Incorporates appropriate dirt depreciation factor for life of luminaire.

All components from foundation to poletop are designed to work together in Light-Structure System™ to ensure reliable, trouble-free operation.

U.S. and foreign patent(s) issued and pending • ©2017, 2018 Musco Sports Lighting, LLC • TLC-BT-575 5700K 75CRI • M-2477-en04-3

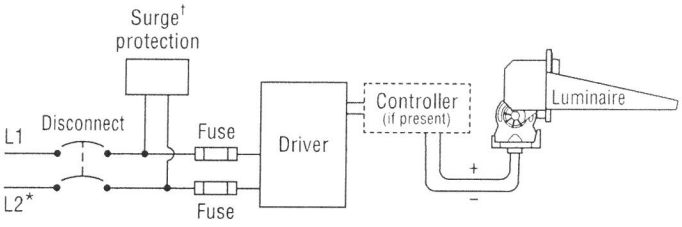
Luminaire and Driver Components – TLC-BT-575

Driver Data

Electrical Data

Rated wattage[1]	
Per driver	575 W
Per luminaire	575 W
Number of luminaires per driver	1
Starting (inrush) current	<40 A, 256 µs
Fuse rating	15 A
UL, IEC ambient temperature rating, electrical components enclosure	50°C (122°F)
Ingress protection, electrical components enclosure	IP54
Efficiency	95%

Typical Wiring



* If L2 (com) is neutral then not switched or fused.
† Not present if indoor installation.

	200 Vac 50/60 Hz	208 Vac 60 Hz	220 Vac 50/60 Hz	230 Vac 50 Hz	240 Vac 50/60 Hz	277 Vac 60 Hz	347 Vac 60 Hz	380 Vac 50/60 Hz	400 Vac 50 Hz	415 Vac 50 Hz	480 Vac 60 Hz
Max operating current[2] per luminaire	3.48 A	3.35 A	3.16 A	3.03 A	2.90 A	2.51 A	2.01 A	1.83 A	1.74 A	1.68 A	1.45 A

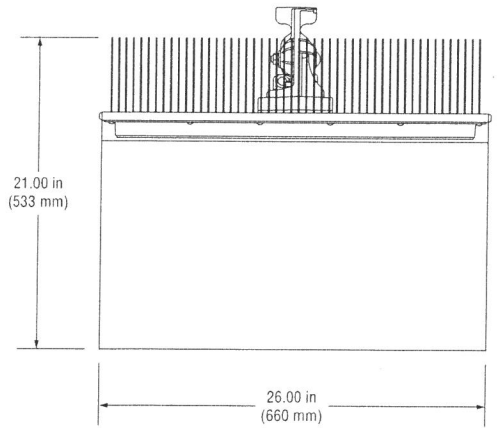
Footnotes:

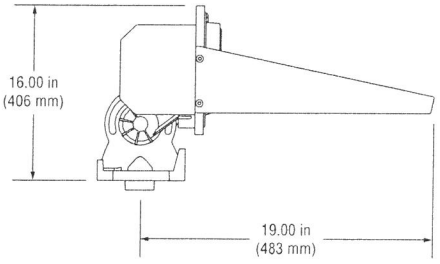
1) Rated wattage is the power consumption, including driver efficiency losses, at stabilized operation in 25°C ambient temperature environment.

2) Operating current includes allowance for 0.90 minimum power factor, operating temperature, and LED light source manufacturing tolerances.

Notes

1. Use thermal magnetic HID-rated or D-curve circuit breakers.
2. See Musco *Control System Summary* for circuit information.





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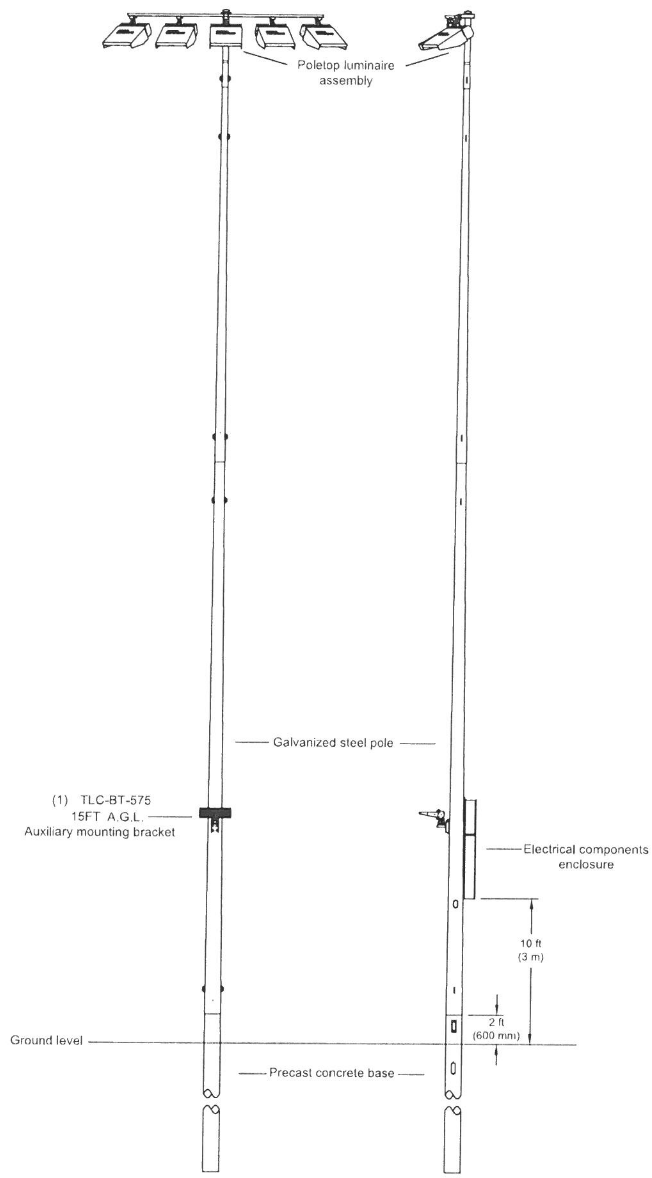

POLE(S): A1

Musco 70FT Light-Structure System™ pole
TLC for LED™ luminaires
(5) TLC-LED-1500

PROJECT NUMBER:	DRAWN BY:	SCALE:	DATE:	DRAWING NUMBER:
182914	B.GULER	NTS	05/06/2019	182914P1

1 OF 5 SHEETS

DATE:	BY:	R.L.	REVISIONS:

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+1-800-825-6020
+1-641-673-0411

Miller School of Albemarle
Charlottesville, VA
Pole Configuration Drawing B

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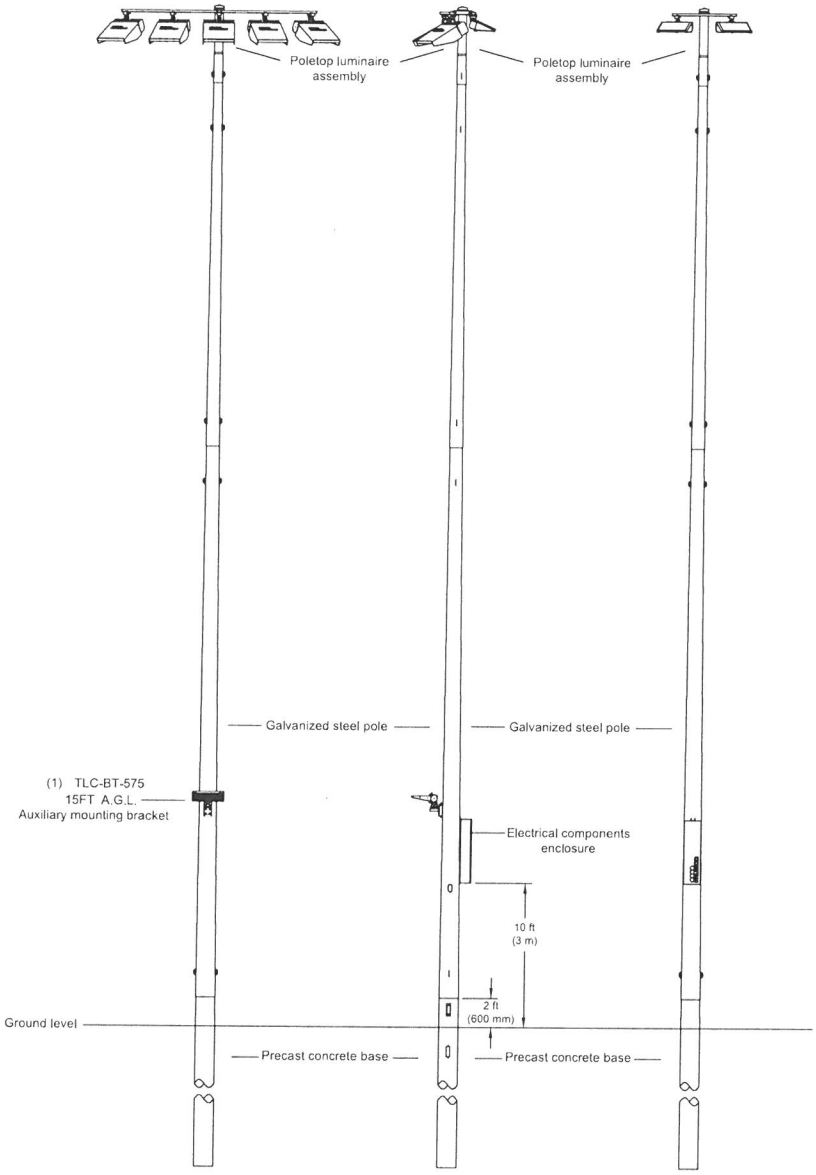

POLE(S): A2

Musco 70FT Light-Structure System™ pole
TLC for LED™ luminaires
(5) TLC-LED-1500,
(2) TLC-LED-600

PROJECT NUMBER:	182914
DRAWN BY:	B.GULER
SCALE:	NTS
DATE:	05/06/2019
DRAWING NUMBER:	182914P1
	2 OF 5 SHEETS

DATE:	BY:	R.L.	REVISIONS:

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+1-641-673-0411

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Charlottesville, VA
Pole Configuration Drawing
B

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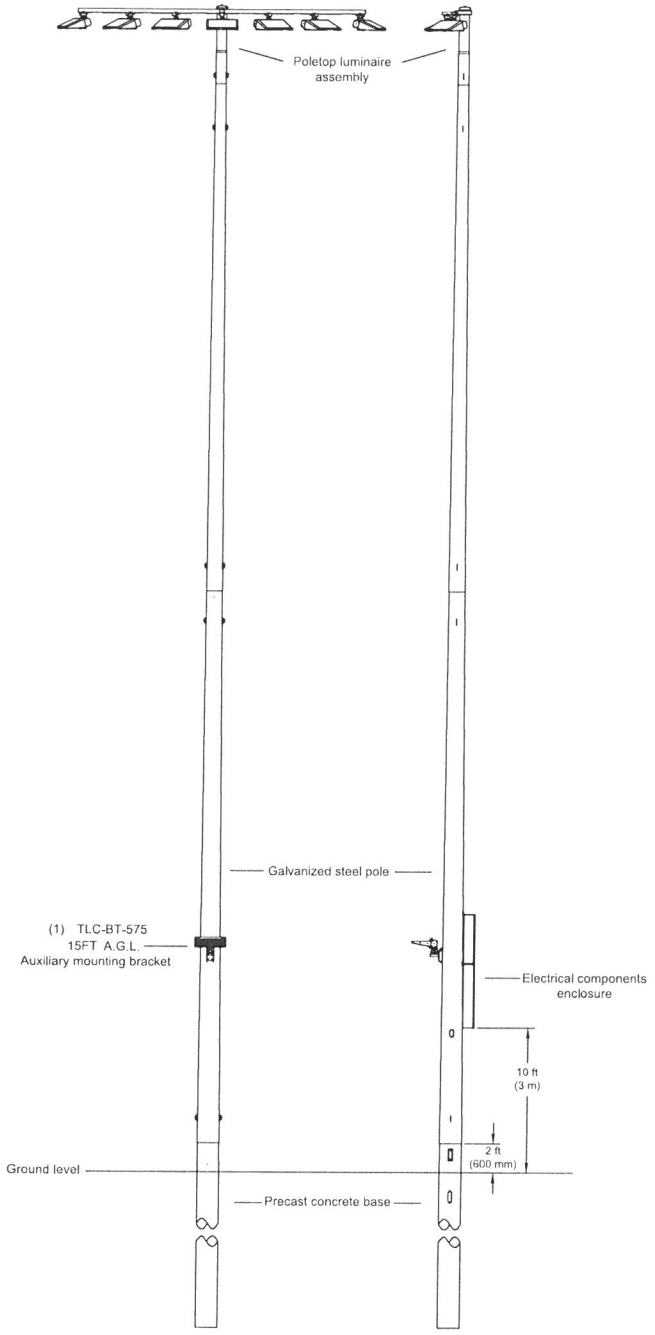

POLE(S): B1, B2

Musco 80FT Light-Structure System™ pole
TLC for LED™ luminaires
(7) TLC-LED-1200/1500

PROJECT NUMBER: 182914	DRAWN BY: B.GULER	SCALE: NTS	DATE: 05/06/2019	DRAWING NUMBER: 182914P1	3 OF 5 SHEETS

DATE:	BY:	R.L.	REVISIONS:

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Pole Configuration Drawing
B

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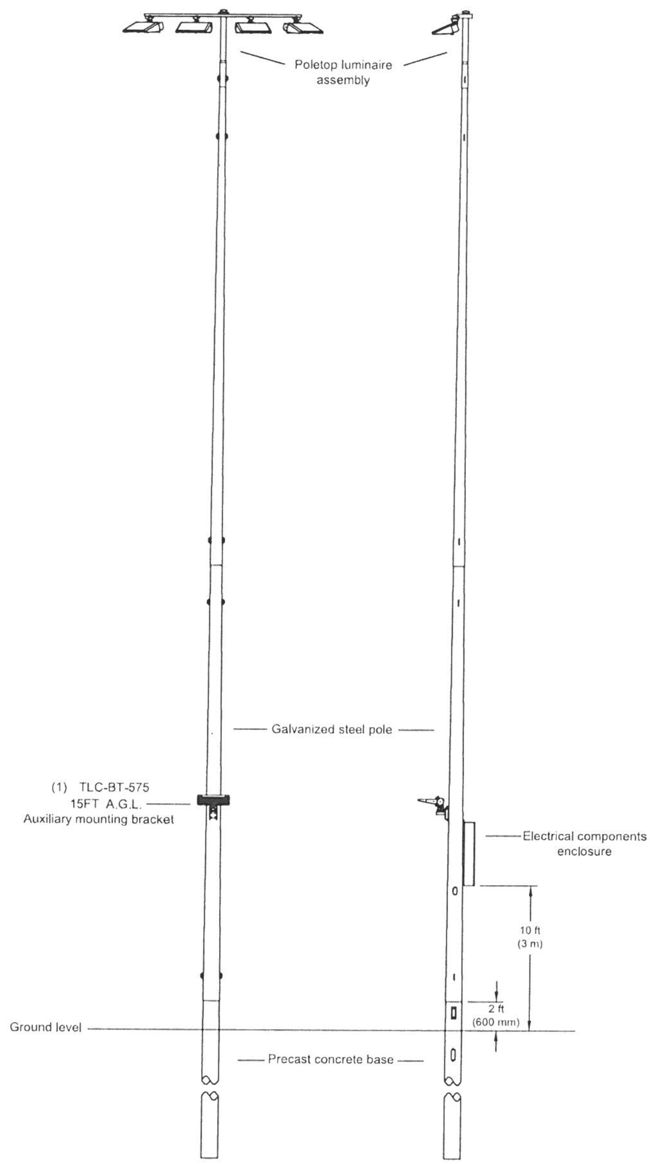

POLE(S): C1, C2

Musco 70FT Light-Structure System™ pole
TLC for LED™ luminaires
(4) TLC-LED-1200

PROJECT NUMBER:	DRAWN BY:	SCALE:	DATE:	DRAWING NUMBER:
182914	B.GULER	NTS	05/06/2019	182914P1

4 OF 5 SHEETS

DATE:	BY:	R.L.	REVISIONS:

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Pole Configuration Drawing B

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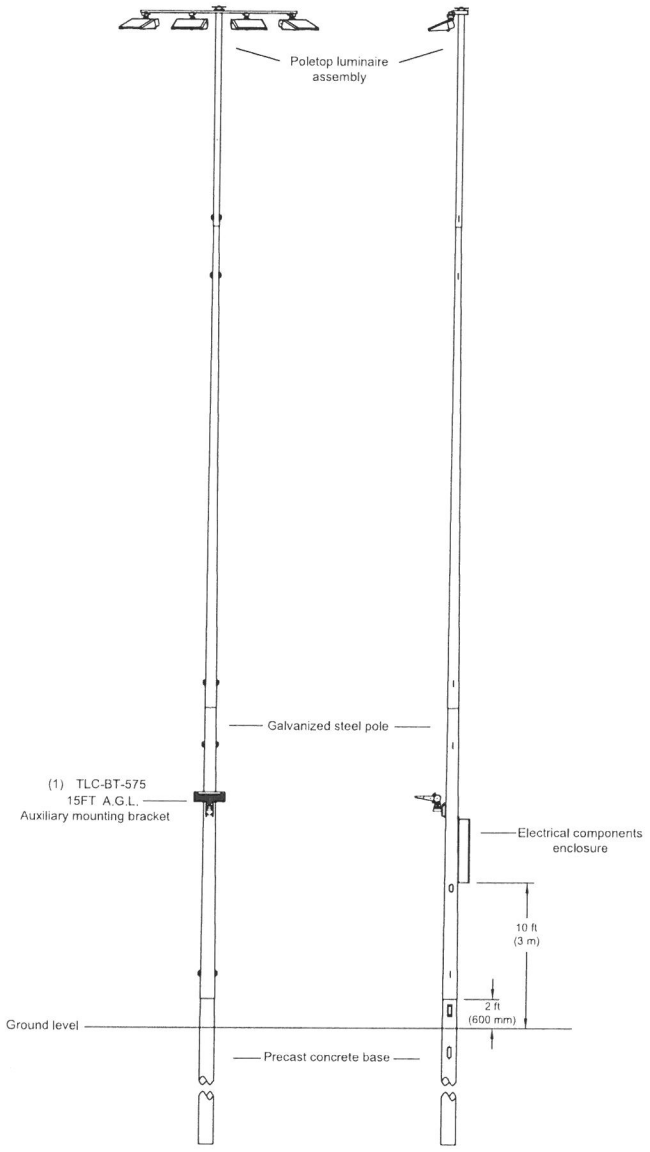

POLE(S): D1, D2

Musco 70FT Light-Structure System™ pole
TLC for LED™ luminaires
(4) TLC-LED-1200

PROJECT NUMBER:	182914		
DRAWN BY:	B.GULER		
SCALE:	NTS		
DATE:	05/06/2019		
DRAWING NUMBER:	182914P1		
SHEETS	5 OF 5		

DATE:	BY:	R.L.	REVISIONS:

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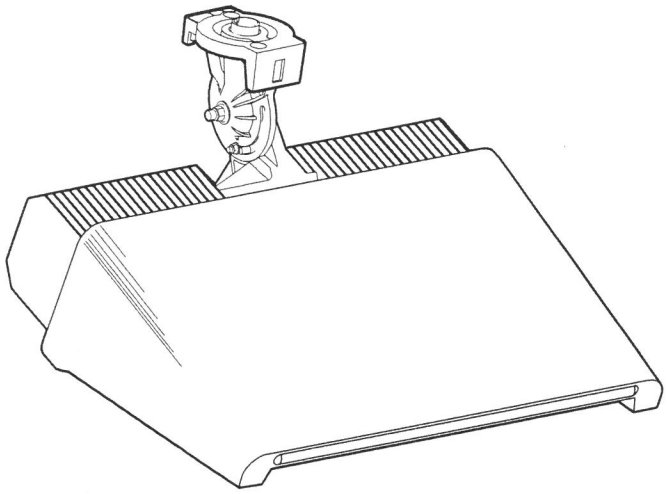
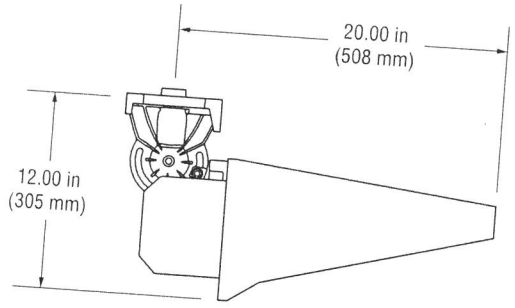
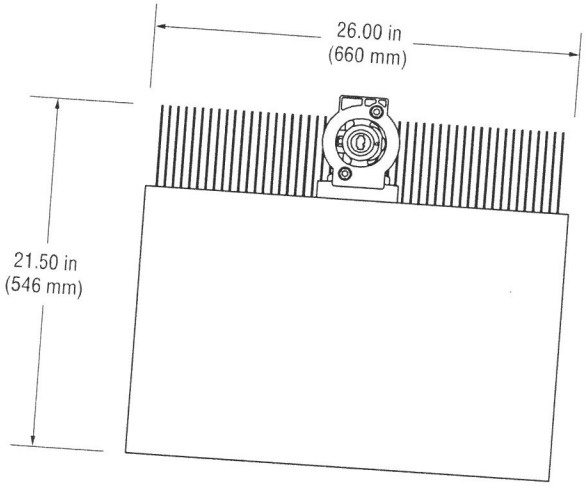
Pole Configuration Drawing

Datasheet: **TLC-LED-600 Luminaire and Driver**







Luminaire Data

Weight (luminaire)	40 lb (18 kg)
UL listing number	E338094
UL listed for USA / Canada	UL1598 CSA-C22.2 No.250.0
CE Declaration	LVD, EMC, RoHS
Ingress protection, luminaire	IP65
Material and finish	Aluminum, powder-coat painted
Wind speed rating (aiming only)	150 mi/h (67 m/s)
UL, IEC ambient temperature rating, luminaire	50°C (122°F)

Photometric Characteristics

Projected lumen maintenance per IES TM-21-11	
L90 (13.5k)	>81,000 h
L80 (13.5k)	>81,000 h
L70 (13.5k)	>81,000 h
CIE correlated color temperature	5700 K
Color rendering index (CRI)	75 typ, 70 min
Lumens[1]	65,600

Footnotes:

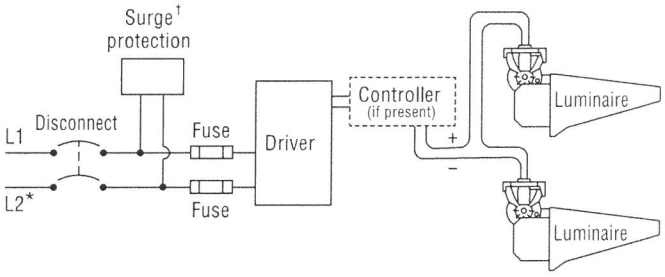
1) Incorporates appropriate dirt depreciation factor for life of luminaire.

Driver Data

Electrical Data

Rated wattage[1]	
Per driver	1160 W
Per luminaire	580 W
Number of luminaires per driver	2
Starting (inrush) current	<40 A, 256 µs
Fuse rating	15 A
UL, IEC ambient temperature rating, electrical components enclosure	50°C (122°F)
Ingress protection, electrical components enclosure	IP54
Efficiency	95%
Dimming mode	optional
Range, energy consumption	20 – 100%
Range, light output	25 – 100%

Typical Wiring



* If L2 (com) is neutral then not switched or fused.
† Not present if indoor installation.

	200 Vac 50/60 Hz	208 Vac 60 Hz	220 Vac 50/60 Hz	230 Vac 50 Hz	240 Vac 50/60 Hz	277 Vac 60 Hz	347 Vac 60 Hz	380 Vac 50/60 Hz	400 Vac 50 Hz	415 Vac 50 Hz	480 Vac 60 Hz
Max operating current per luminaire[2]	3.54 A	3.40 A	3.22 A	3.08 A	2.95 A	2.56 A	2.04 A	1.86 A	1.77 A	1.71 A	1.48 A

Footnotes:

1) Rated wattage is the power consumption, including driver efficiency losses, at stabilized operation in 25°C ambient temperature environment.

2) Operating current includes allowance for 0.90 minimum power factor, operating temperature, and LED light source manufacturing tolerances.

Notes

1. Use thermal magnetic HID-rated or D-curve circuit breakers.
2. See *Musco Control System Summary* for circuit information.

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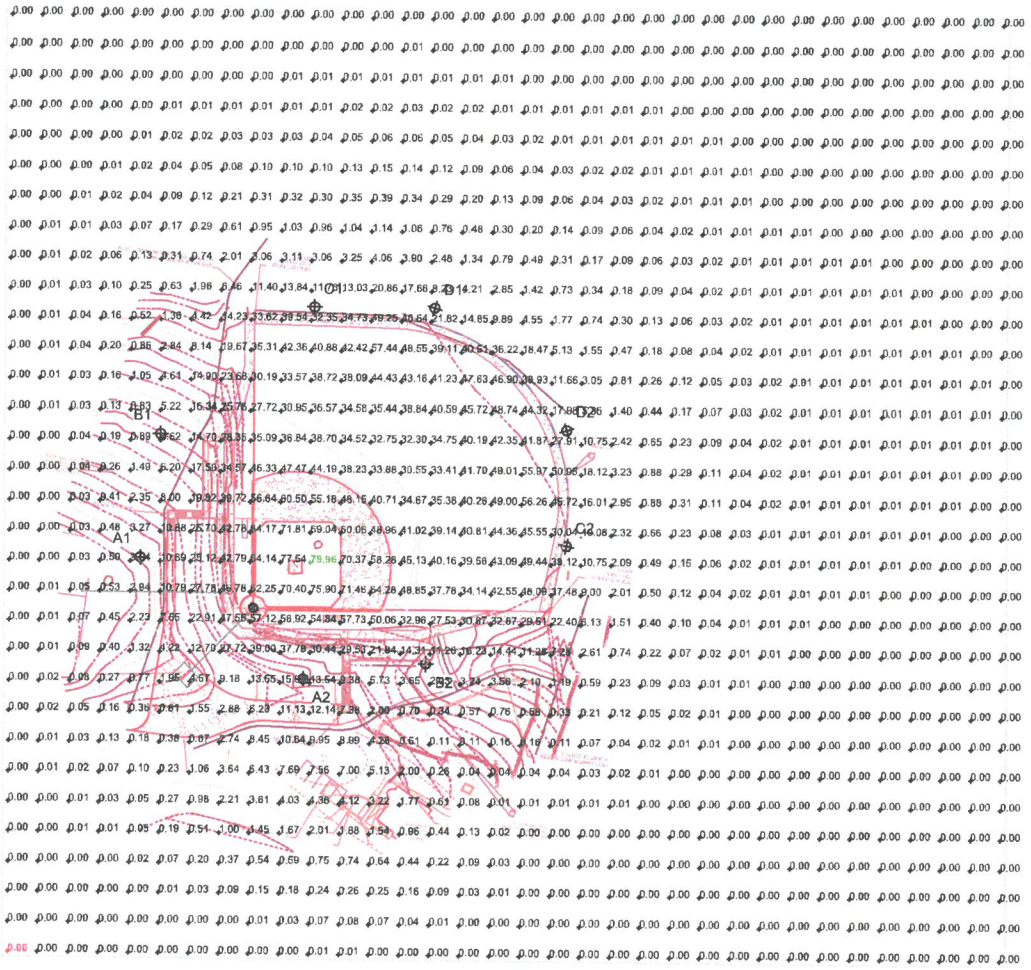

SCALE IN FEET 1 : 120

0' 120' 240'

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

ENGINEERED DESIGN By: dalexander • File #182914A_BLANKET • 10-Jun-19

GRID SUMMARY

Name:	**BLANKET**
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Scan Average:	**6.07**
Maximum:	80
Minimum:	0
No. of Points:	1088

LUMINAIRE INFORMATION

Color / CRI:	5700K - 75 CRI
Luminaire Output:	136,000 / 160,000 / 52,000 / 65,600 lumens
No. of Luminaires:	**50**
Total Load:	58.28 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1200	>81,000	>81,000	>81,000
TLC-LED-1500	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000
TLC-LED-600	>81,000	>81,000	>81,000

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.

musco Lighting

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