City of Palm Coast, Florida
Agenda Item

Agenda Date: May 19, 2026

Agenda Item:
G.8

Department STORMWATER AND ENGINEERING **Division** CONSTRUCTION MGT AND ENGINEERING	**Amount** $714,494.00 **Org/Account #** 21066015-063000-PK66015

Subject: RESOLUTION 2026-XX APPROVING A WORK ORDER AND EXPENSES RELATED TO THE INDIAN TRAILS SPORTS COMPLEX FIELD LIGHTING #6-8

Presenter: **Eric Gebo, Architect**

Attachments:

1. Resolution
2. Scope of Work

Background:

The City of Palm Coast has identified sporting events/tournaments as an economic development strategy to increase visitors to the City of Palm Coast. Since the initial expansion of the Indian Trails Sports Complex (2011) there was a significant increase in the number of tournaments held.

In a continued effort to enhance and develop facilities, the city has applied for a Flagler County Tourist Development Council (TDC) Fund 109 Capital Improvement Grant for the Indian trails Sports Complex Field Lighting #6-8. The estimated project cost for lighting materials, electrical services and sod repair is $714, 494. Staff requested 50% of the project cost in grant funding, for a total award of $357,247.

Staff received pricing for sports lighting solutions, materials and services under approved piggyback Sourcewell Contract RFP#041123 with Musco Sports Lighting in the amount of $585,000. Utilizing a piggyback contract allows the City to adopt competitively solicited agreements established by other governmental entities. This method reduces administrative burden, accelerates procurement timelines, and provides access to pre-negotiated pricing, terms, and vendor performance standards. All piggyback contracts are reviewed by the City Attorney to ensure legal sufficiency and compliance with applicable laws. When the original contract originates from an agency outside the State of Florida, the City incorporates necessary provisions to ensure conformity with Florida law and local procurement requirements. This approach maintains compliance with state purchasing standards while promoting cost efficiency and enabling staff to focus on core service delivery.

Under existing contract # RFP-PW-24-42, Staff negotiated a scope and fee with Palmetto, a continuing services provider for the city, in the amount of $119,494 for electrical services related to field lighting installation.

Staff are seeking approval of project expenses in the amount of $704,494, along with a contingency amount of $10,000 (sod allowance) for a total project cost of $714,494.00.

Funds for this project are budgeted out of the FY26 Recreation Impact Fund with a 50% reimbursement through an approved TDC Grant.

The Fund Worksheet below includes a transfer from the Capital Projects Fund to the Recreation Impact Fee Fund for the existing citizen share of park capacity projects of 46.71% in the amount of $166,870.00.

Source of Funds Worksheet
Original Budget: $8,071,815.00
Total Expended/Encumbered to Date: $3,124,481.89
Pending Work Orders.Contracts: $0.00
Current (WO/Contract): $714,494.00
Balance: $4,232,839.11

Recommended Action:
RESOLUTION 2026-XX APPROVING A WORK ORDER AND EXPENSES RELATED TO THE INDIAN TRAILS SPORTS COMPLEX FIELD LIGHTING #6-8 PROJECT

RESOLUTION 2026-
ITSC FIELD LIGHTING #6-8

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PALM COAST, FLORIDA, APPROVING EXPENSES FOR THE INDIAN TRAILS SPORTS COMPLEX FIELD LIGHTING #6-8 PROJECT; AUTHORIZING THE CITY MANAGER, OR DESIGNEE, TO EXECUTE THE CONTRACT; PROVIDING FOR SEVERABILITY; PROVIDING FOR CONFLICTS; PROVIDING FOR IMPLEMENTING ACTIONS AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, City staff is requesting funding for expenses and electrical services related to the installation of field lighting for Indian Trails Sports Complex #6-8; and

WHEREAS, City Council desires to approve funding to complete the above mentioned project.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF PALM COAST, FLORIDA AS FOLLOWS:

SECTION 1. LEGISLATIVE AND ADMINISTRATIVE FINDINGS. The above recitals (whereas clauses) are hereby adopted as the legislative and administrative findings of the City Council.

SECTION 2. APPROVAL OF FUNDING. The City Council of the City of Palm Coast hereby approves expenses related to the installation of lighting for Indian Trails Sports Complex Fields #6-8 project as attached hereto and incorporated herein by reference herein by reference as Exhibit "A."

SECTION 3. AUTHORIZATION TO NEGOTIEATE, FINALIZE AND EXECUTE. The City Manager, or designee, is hereby authorized to execute the necessary documents.

SECTION 4. FUTURE AMENDMENTS. The City Manager, or designee is hereby authorized to approve any future amendments for changes totaling less than $100,000.00 as long as this amount does not exceed the line-item limit for the budgeted purchase.

SECTION 5. SEVERABILITY. It is hereby declared to be the intention of the City Council that the sections, paragraphs, sentences, clauses and phrases of this Resolution are severable, and if any phrase, clause, sentence, paragraph or section of this Resolution shall be declared unconstitutional by the valid judgment or decree of a court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this Resolution.

SECTION 6. CONFLICTS. All resolutions or parts of resolutions in conflict with any of the provisions of this Resolution are hereby repealed.

SECTION 7. IMPLEMENTING ACTIONS. The City Manager is hereby authorized to take any actions necessary to implement the action taken in this Resolution.

SECTION 8. EFFECTIVE DATE. This Resolution shall take effect immediately upon adoption by the City Council.

DULY PASSED AND ADOPTED by the City Council of the City of Palm Coast, Florida, on this 19th day of May 2026.

ATTEST: CITY OF PALM COAST

_____ _____

KALEY COOK, CITY CLERK MICHAEL NORRIS, MAYOR

APPROVED AS TO FORM AND LEGALITY

_____

MARCUS DUFFY, CITY ATTORNEY

Attachment: Exhibit "A" Musco Lighting Proposal

Quote

Date: 2/3/2026

Project: Palm Coast Indian Trails Sports Complex Fields 6-8
Palm Coast, FL

To: Eric Gebo

Musco Project Number: 246756

Sourcewell
Master Project: 199030, **Contract Number:** 041123-MSL, **Expiration:** 06/16/2027
Category: Sports lighting with related supplies and services

All purchase orders should note the following:
Sourcewell Purchase – Contract Number: 041123-MSL

Quotation Price – Materials Delivered to Job Site and Installation

(3) 30fc Soccer Fields ..... ***$ 585,000***

Sales tax and bonding are not included.
Quote is confidential. Pricing and lead times are effective for 30 days only.

Light-Structure System™ with Total Light Control – TLC for LED™ technology

Guaranteed Lighting Performance

- Guaranteed light levels of 30fc and uniformity of 2.5/1.0.

System Description

- Factory aimed and assembled luminaries
- Galvanized steel poles
- Pre-cast concrete bases with integrated lightning grounding
- Pole length factory assembled wire harnesses
- Factory wired and tested remote electrical component enclosures
- UL listed assemblies
- Enhanced corrosion protection

Control Systems and Services

- Control-Link® control and monitoring system to provide remote on/off and dimming (high/medium/low) control and performance monitoring with 24/7 customer support

Operation and Warranty Services

- Product assurance and warranty program that covers materials and onsite labor, eliminating 100% of your maintenance costs for 25 years
- Support from Musco's Lighting Services Team – over 170 Team members dedicated to operating and maintaining your lighting system – plus a network of 1800+ contractors

Musco Scope

- Provide design and layout for lighting system
- Test and final aim equipment

Installation Services Provided

[See attached scope of work]

Responsibilities of Buyer

- Confirm pole or luminaire locations, supply voltage and phase required for lighting system prior to production
- Provide electrical design and materials for electrical distribution system
- Provide labor and equipment for installation of electrical distribution system
- Buyer is responsible for getting electrical power to the site, coordination with the utility, and any power company fees

Payment Terms

Final payment terms are subject to approval by Musco credit department. Final payment shall not be withheld by Buyer on account of delays beyond the control of Musco.

Email or fax a copy of the Purchase Order to Musco Sports Lighting, LLC:

Musco Sports Lighting, LLC
Attn: Musco Contracts
Fax: 800-734-6402
Email: musco.contracts@musco.com

All Purchase orders should note the following:
Sourcewell Purchase – Contract Number: 041123-MSL

Delivery Timing

10 - 12 weeks for delivery of materials to the job site from the time of order, submittal approval, and confirmation of order details including voltage, phase, and pole/luminaire locations.

Notes

Quote is based on following conditions:

- Shipment of entire project together to one location.
- Voltage and phase system requirements to be confirmed.
- Structural code and wind speed = FBC 2023, 140 mi/h, Exposure C, Importance Factor I.
- Due to the built-in custom light control per luminaire, pole or luminaire locations need to be confirmed prior to production. Changes to pole or luminaire locations after the product is sent to production could result in additional charges.
- Standard soil conditions – rock, bottomless, wet, or unsuitable soil may require additional engineering, special installation methods and additional cost.

Thank you for considering Musco for your lighting needs. Please contact me with any questions or if you need additional details.

Danny Sheldon
Senior Sales Representative
Musco Sports Lighting, LLC
100 1st Avenue West – PO Box 808
Oskaloosa, IA 52577, USA
Phone: 352-665-0578
E-mail: danny.sheldon@musco.com

Palm Coast Indian Trails Sports Complex Fields 6-8
Palm Coast, FL
Pole in the Air Scope of Work

Customer Responsibilities:

1. Complete access to the site for construction utilizing standard 2-wheel drive rubber tire equipment.
2. Locate existing underground utilities not covered by your local utilities. (i.e. water lines, electrical lines, irrigation systems, and sprinkler heads). Musco or Subcontractor will not be responsible for repairs to unmarked utilities.
3. Survey pole locations prior to delivery of Musco Equipment.
4. Pay for extra costs associated with foundation excavation in non-standard soils (rock, caliche, high water table, collapsing holes, etc.) or soils not defined in geo-technical report. Standard soils are defined as soils that can be excavated using standard earth auguring equipment.
5. Pay any power company fees and requirements.
6. Pay all permitting fees and obtain the required electrical permitting.
7. Provide area on site for disposal of spoils from foundation excavation.
8. Provide area on site for dumpsters and storage containers.
9. Provide sealed Electrical Plans. (If required)
10. Provide a source of water such as a fire hydrant or 2” water line for foundation excavation. Pay for any and all fees associated with the water access and usage.

Musco Responsibilities:

1. Provide required foundations, poles, electrical enclosures, luminaires, wire harnesses, and control cabinets.
2. Provide layout of pole locations and aiming diagram.
3. Provide Project Management as required.
4. Provide stamped foundation designs.
5. Assist our installing subcontractor and ensure our responsibilities are satisfied.

Subcontractor Responsibilities

General:

1. Obtain any required permitting.
2. Contact locate services for locating underground public utilities and then confirm they have been clearly marked.
3. Contact the facility owner/manager to confirm the existing private underground utilities and irrigation systems have been located and are clearly marked to avoid damage from construction equipment. Notify owner and repair damage to marked utilities. Notify owner and Musco regarding damage which occurred to unmarked utilities.
4. Provide labor, equipment, and materials to off load equipment at jobsite per scheduled delivery.
5. Provide storage containers for material, (including electrical components enclosures), as needed.
6. Provide necessary waste disposal and daily cleanup.
7. Provide adequate security to protect Musco delivered products from theft, vandalism or damage during the installation.
8. Keep all heavy equipment off playing surfaces when possible. Repair damage to grounds which exceeds that which would be expected. Indentations caused by heavy equipment traveling over dry ground would be an example of expected damage. Ruts and sod damage caused by equipment traveling over wet grounds would be an example of damage requiring repair.
9. Provide startup and aiming as required to provide complete and operating sports lighting system.

10. Installation to commence upon delivery and proceed without interruption until complete. Notify Musco immediately of any breaks in schedule or delays.

Foundations, Poles, and Luminaires:

1. Confirm pole locations per the surveyed locations and aiming diagram provided. If there are any issues, immediately notify your Musco Project Manager.
2. Provide labor, materials, and equipment to install (10) LSS foundations as specified on layout and per the stamped foundation drawings, if applicable.
3. Remove spoils to owner designated location at jobsite.
4. Provide labor, materials, and equipment to assemble Musco TLC-LED luminaires, electrical component enclosures, poles, and pole harnesses.
5. Provide labor, equipment, and materials to erect (10) dressed LSS Poles and aim utilizing the pole alignment beam.
6. Ground poles per code requirements.

CODE OF CONDUCT

In order to maintain a high-quality jobsite and installation, Subcontractor represents to Musco that it has the supervision necessary to, and shall train, manage, supervise, monitor, and inspect the activities of its employees for the purpose of enforcing compliance with these safety requirements. Subcontractor acknowledges that Musco does not undertake any duty toward Subcontractor's employees to train, manage, supervise, monitor, and inspect their work activities for the purpose of enforcing compliance with these safety requirements, but Subcontractor agrees to abide by any reasonable recommendations made by Musco or Musco representatives with respect to safety.

Subcontractor agrees that it is or will be familiar with and shall abide by the safety rules and regulations of Musco and the Owner, including, but not limited to the Occupational Safety and Health Act of 1970 (OSHA), all rules and regulations established pursuant thereto, and all amendments and supplements thereto.

Subcontractor further agrees to require all its employees, subcontractors, and suppliers to comply with these requirements. Subcontractor shall also observe and comply with all laws with respect to environmental protection applicable to the Project.

Subcontractor shall require all its subcontractors, employees, visitors, suppliers, and agents under its direction to comply with the following:

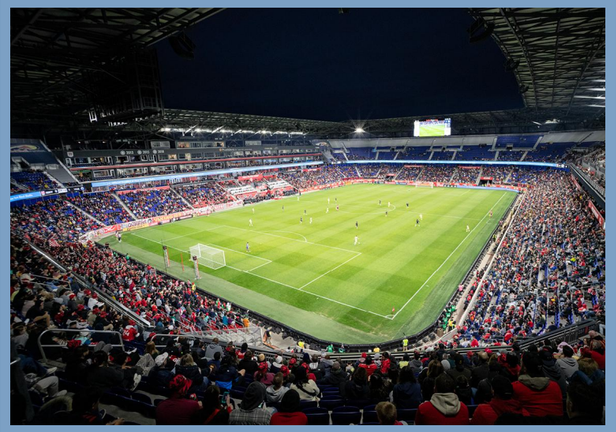
1. GENERAL JOBSITE SAFETY AND CLEANLINESS.
   a. Subcontractor's employees and agents shall be required to wear appropriate personal protective equipment including, but not limited to, safety glasses with side shields, work shoes, fall protection devices, and hard hats.
   b. Where a walking or working surface has an unprotected side or edge which is six feet or more above a lower level, Subcontractor shall use guardrail systems, safety net systems, or personal fall arrest systems.
   c. Jobsite shall be kept free of debris including, but not limited to, cardboard and packing materials which can become windborne.
   d. Construction equipment shall be parked during non-use in an orderly fashion so as not to create inconvenience to others using the jobsite.
   e. Subcontractor shall provide for and ensure the use of safety equipment for the Project in accordance with Musco's and Owner's safety requirements, to the extent these may be stricter than federal, state, or local standards, or generally recognized industry applicable standards.
   f. Subcontractor shall provide the Musco project manager with an "Emergency List" showing Subcontractor's designated medical doctor, hospital, insurance company, and any other health service providers, such list to be updated within 24 hours of any change in the information provided.
   g. Within eight (8) hours from the time of an accident (or such shorter period as laws may require), Subcontractor shall advise Musco of any accident resulting in injury to any person or damage to any equipment or facility. Upon request, Subcontractor shall promptly furnish Musco with a written report of any such accident as well as a copy of all insurance and worker's compensation claims involving the Project.
   h. Subcontractor shall maintain and inspect all construction equipment, including cranes and other lifting equipment, prior to each use. Subcontractor warrants that all equipment operators shall be qualified for each piece of construction equipment they intend to operate. Documentation of specific training is the responsibility of the Subcontractor.
   i. Jobsite shall be policed daily for compliance to the above conditions.
   j. Subcontractor's employees and agents are prohibited from using drugs and alcohol on the Project property or being under the influence of alcohol or drugs while performing work on the Project. Anyone

observed participating in or observed under the influence will be removed from the Project immediately and prohibited from returning, with no exceptions.

2. CONFORMANCE TO STANDARD MUSCO INSTALLATION GUIDELINES.
   a. Review and understand installation instructions are provided with every product installation.
   b. Education of installation personnel to allow for highest efficiency and lowest possibility of failure.
   c. Verify that components have been assembled per Musco installation instructions.
   d. Verify plumb of concrete foundations prior to standing of poles.

3. PROVIDING A QUALITY INSTALLATION TEAM.
   a. Subcontractor's work directly reflects the quality of the installation and may indirectly relate to the quality of the product upon which Musco's reputation is built.
   b. Provide and maintain quality installation equipment. Records of maintenance and/or calibration shall be provided upon request.
   c. Personnel shall be knowledgeable in operation of equipment as well as installation of Musco product.
   d. All personnel provided by Subcontractor shall understand the relationship developed by and between Subcontractor and Musco, also by and between Musco and the customer, and act accordingly.

We Make It Happen®



Sports Illustrated Stadium, Harrison, New Jersey, USA

UBS Arena, Elmont, New York, USA

Iowa Women of Achievement Bridge, Des Moines, Iowa, USA

Tottenham Hotspur FC Training Ground, Tottenham, London, UK

Palm Coast Indian Trails Sports Complex Fields 6-8

Palm Coast,FL

Sales Representative: Danny Sheldon · Designed By: Eli Whitney · Design No.: 246756A · January 28, 2026

Palm Coast Indian Trails Sports Complex Fields 6-8

Palm Coast,FL

LIGHTING SYSTEM

Structure/Fixture Summary

Structure ID	Structure Height	Fixt. Attachment Ht.	Fixture Qty	Fixture Type	Load	Circuit
S1-S2	70'	70'	5	TLC-LED-1200	5.85 kW	A
S3	70'	70'	5	TLC-LED-1200	5.85 kW	A
		70'	5	TLC-LED-1200	5.85 kW	C
S4	70'	70'	5	TLC-LED-1200	5.85 kW	A
		70'	5	TLC-LED-1200	5.85 kW	B
S5-S7	70'	70'	5	TLC-LED-1200	5.85 kW	B
S8-S9 S11	70'	70'	5	TLC-LED-1200	5.85 kW	C
10			**60**		**70.20 kW**	

Circuit Summary

Circuit	Description	Load	Fixture Qty
A	Soccer 1	23.40 kW	20
B	Soccer 2	23.40 kW	20
C	Soccer 3	23.40 kW	20

Fixture Type Summary

Type	Circuit	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-1200	A	LED 5700K - 75 CRI	1170W	150,000	>120,000	>120,000	>120,000	20
TLC-LED-1200	B	LED 5700K - 75 CRI	1170W	150,000	>120,000	>120,000	>120,000	20
TLC-LED-1200	C	LED 5700K - 75 CRI	1170W	150,000	>120,000	>120,000	>120,000	20

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-1200	6.9	6.5	6.0	5.2	4.2	3.8	3.0

Light Level Summary

Calculation Grid Summary

Grid Name	Calculation Metric	Illumination Ave					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Soccer 6	Horizontal Illuminance	33.47	24.72	44.89	1.82	1.35	A	20
Soccer 7	Horizontal Illuminance	31.34	20.82	39.15	1.88	1.50	B	20
Soccer 8	Horizontal Illuminance	32.10	25.02	40.01	1.60	1.28	C	20

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
2	S1-S2	70'	-	70'	TLC-LED-1200	5	5	0
2	S3-S4	70'	-	70'	TLC-LED-1200	5/5*	5	5
4	Totals					30	20	10

Above Field Level is height of fixtures above area shown

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

SCALE IN FEET 1 : 40

0' 40' 80'

ENGINEERED DESIGN By: Eli Whitney • File #246756A • 28-Jan-26

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

Palm Coast Indian Trails Sports Complex Fields 6-8

Palm Coast,FL

Grid Summary

Name:	**Soccer 6**
Size:	362' x 174'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

Illumination Summary

MAINTAINED HORIZONTAL FOOTCANDLES	Entire Grid
Guaranteed Average:	**30**
Scan Average:	33.47
Maximum:	44.89
Minimum:	24.72
Avg/Min:	1.35
Guaranteed Max/Min:	**2.5**
Max/Min:	1.82
UG (adjacent pts):	1.41
CU:	0.71
No. of Points:	72
FIXTURE INFORMATION	
Applied Circuits:	A
No. of Fixtures:	**20**
Total Load:	23.40 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 ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

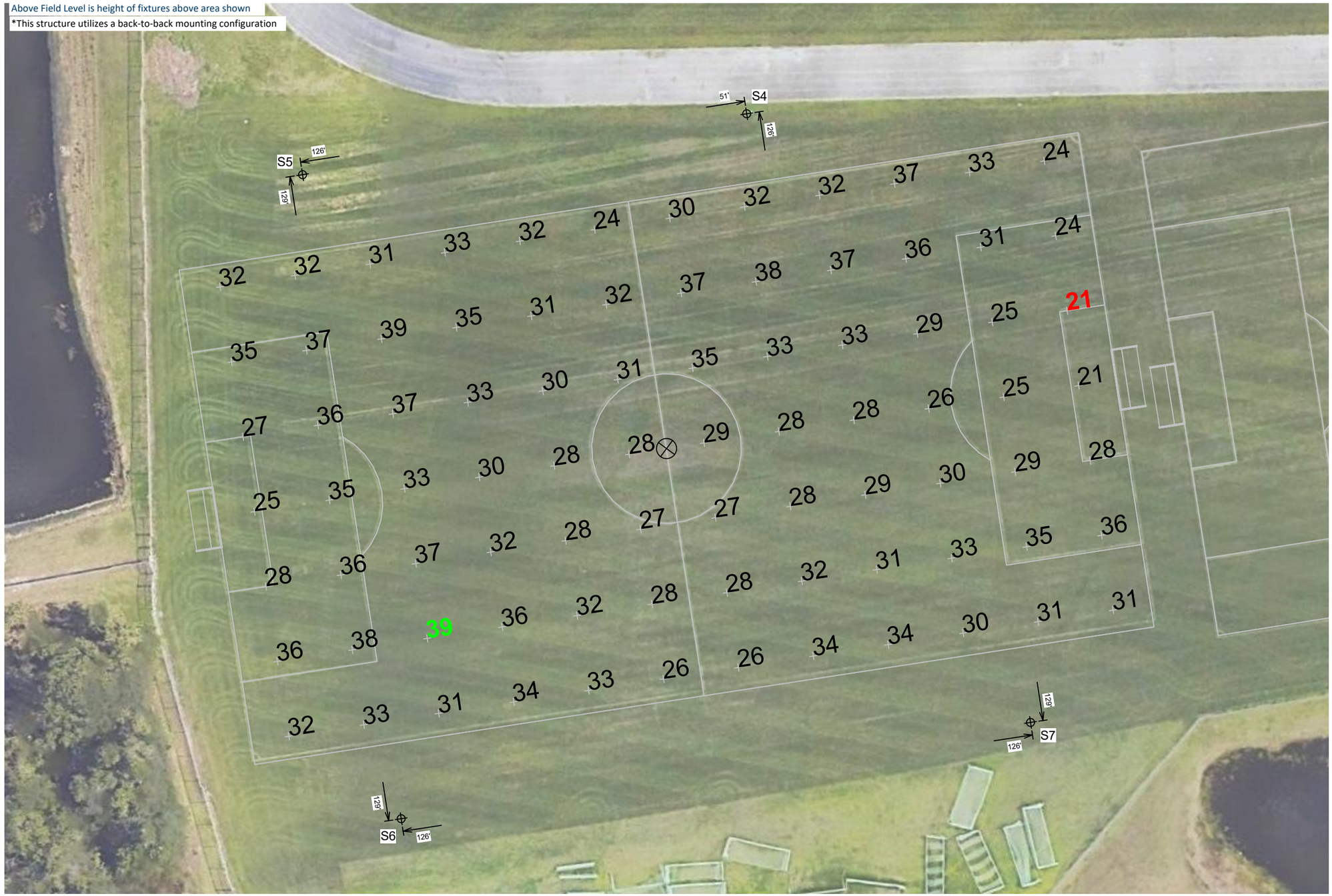
musco We Make It Happen.

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	S4	70'	-	70'	TLC-LED-1200	5/5*	5	5
3	S5-S7	70'	-	70'	TLC-LED-1200	5	5	0
4	Totals					25	20	5

Above Field Level is height of fixtures above area shown

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



SCALE IN FEET 1 : 40

0' 40' 80'

ENGINEERED DESIGN By: Eli Whitney • File #246756A • 28-Jan-26

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

Palm Coast Indian Trails Sports Complex Fields 6-8

Palm Coast,FL

Grid Summary

Name:	**Soccer 7**
Size:	360' x 198'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

Illumination Summary

MAINTAINED HORIZONTAL FOOTCANDLES	Entire Grid
Guaranteed Average:	**30**
Scan Average:	31.34
Maximum:	39.15
Minimum:	20.82
Avg/Min:	1.50
Guaranteed Max/Min:	**2.5**
Max/Min:	1.88
UG (adjacent pts):	1.37
CU:	0.77
No. of Points:	84
FIXTURE INFORMATION	
Applied Circuits:	B
No. of Fixtures:	**20**
Total Load:	23.40 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 ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

Palm Coast Indian Trails Sports Complex Fields 6-8

Palm Coast,FL

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	S3	70'	-	70'	TLC-LED-1200	5/5*	5	5
3	S8-S9 S11	70'	-	70'	TLC-LED-1200	5	5	0
4	Totals					25	20	5

Above Field Level is height of fixtures above area shown

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

Grid Summary

Name:	**Soccer 8**
Size:	348' x 194'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

Illumination Summary

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Guaranteed Average:	**30**
Scan Average:	32.10
Maximum:	40.01
Minimum:	25.02
Avg/Min:	1.28
Guaranteed Max/Min:	**2.5**
Max/Min:	1.60
UG (adjacent pts):	1.47
CU:	0.79
No. of Points:	84
FIXTURE INFORMATION	
Applied Circuits:	C
No. of Fixtures:	**20**
Total Load:	23.40 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 ± 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'

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

ENGINEERED DESIGN By: Eli Whitney • File #246756A • 28-Jan-26

Palm Coast Indian Trails Sports Complex Fields 6-8

Palm Coast,FL

Equipment Layout

INCLUDES:
· Soccer 6
· Soccer 7
· Soccer 8

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	GLOBAL ELEVATION	ABOVE GLOBAL LEVEL	FIXTURE TYPE	QTY/POLE
8	S1-S2 S5-S9 S11	70'	-	70'	TLC-LED-1200	5
2	S3-S4	70'	-	70'	TLC-LED-1200	5/5*
10	Totals					60

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

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)						
Single Phase Voltage	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
TLC-LED-1200	6.9	6.5	6.0	5.2	4.2	3.8	3.0

SCALE IN FEET 1 : 70

0' 70' 140'

ENGINEERED DESIGN By: Eli Whitney • File #246756A • 28-Jan-26

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

Project Submittal: **Approval Letter**

March 2, 2026

Eric Gebo
City of Palm Coast
160 Lake Ave
Palm Coast, FL 32164

RE: Palm Coast Indian Trails Sports Complex Fields 6-8
Project #246756

Dear Eric Gebo

This serves as approval for submittals provided by Musco Sports Lighting, LLC. Please review the enclosed documents and note changes where appropriate. Upon your approval, we can begin fabrication of the materials for your project. Any changes may result in delay of production, delivery, and additional costs.

Please verify the accuracy of the following items and return a signed copy of this Submittal Approval:

- Voltage to pole requirements:_____
- Phase to enclosure: _____

We shall deliver equipment to the job site 10-12 weeks, after submittal approval or release of order.

Please indicate your approval of these submittals in their entirety by signing below.

_____ _____
Authorized Signature Date

_____ _____
Printed Name Company Name

Please return one copy of this form to:
Musco Sports Lighting, LLC
211 2nd Ave West
Oskaloosa, Iowa 52577

Toll Free: 800-825-6020
Email: aaron.bohling@musco.com

MUSCO LIGHTING SUBMITTAL FOR PRODUCTION

PREPARED FOR:

Palm Coast Indian Trails Sports Complex Fields 6-8

Lighting Project
Palm Coast, FL
March 2, 2026

Project #246756

Submitted by:
Musco Sports Lighting, LLC

Attn: Aaron Bohling
211 2nd Ave West
Oskaloosa, Iowa 52577

Toll Free: 800-825-6020

TABLE OF CONTENTS

A. BILL OF MATERIALS

Equipment Description	
60	Light-Structure System™ Total Light Control® TLC-LED-1200 luminaires
10	70 ft galvanized steel poles
10	Pre-cast concrete foundations (9,500 PSI) with integrated grounding
x	Factory wired and assembled pole top luminaire assemblies
x	Factory wired electrical component enclosures
x	Factory built wire harnesses with plug-in connections
Controls	
1	24” x 72” Control and monitoring cabinet
x	High/medium/low dimming
12	30-amp contactors
3	Off/On/Auto (OOA) switches
Warranty	
x	Musco’s Constant 25™ - Controls and Monitoring product assurance and warranty program that eliminates 100% maintenance costs for 25 years, including labor, materials, monitoring and guaranteed light levels.

B. SCOPE OF WORK

Palm Coast Indian Trails Sports Complex Fields 6-8
Palm Coast, FL
Pole in the Air Scope of Work

Customer Responsibilities:

1. Complete access to the site for construction utilizing standard 2-wheel drive rubber tire equipment.
2. Locate existing underground utilities not covered by your local utilities. (i.e. water lines, electrical lines, irrigation systems, and sprinkler heads). Musco or Subcontractor will not be responsible for repairs to unmarked utilities.
3. Survey pole locations prior to delivery of Musco Equipment.
4. Pay for extra costs associated with foundation excavation in non-standard soils (rock, caliche, high water table, collapsing holes, etc.) or soils not defined in geo-technical report. Standard soils are defined as soils that can be excavated using standard earth auguring equipment.
5. Pay any power company fees and requirements.
6. Pay all permitting fees and obtain the required electrical permitting.
7. Provide area on site for disposal of spoils from foundation excavation.
8. Provide area on site for dumpsters and storage containers.
9. Provide sealed Electrical Plans. (If required)
10. Provide a source of water such as a fire hydrant or 2” water line for foundation excavation. Pay for any and all fees associated with the water access and usage.

Musco Responsibilities:

1. Provide required foundations, poles, electrical enclosures, luminaires, wire harnesses, and control cabinets.
2. Provide layout of pole locations and aiming diagram.
3. Provide Project Management as required.
4. Provide stamped foundation designs.
5. Assist our installing subcontractor and ensure our responsibilities are satisfied.

Subcontractor Responsibilities

General:

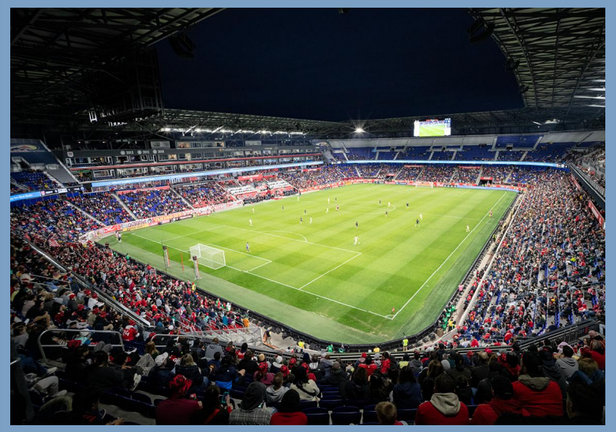
1. Obtain any required permitting.
2. Contact locate services for locating underground public utilities and then confirm they have been clearly marked.
3. Contact the facility owner/manager to confirm the existing private underground utilities and irrigation systems have been located and are clearly marked to avoid damage from construction equipment. Notify owner and repair damage to marked utilities. Notify owner and Musco regarding damage which occurred to unmarked utilities.
4. Provide labor, equipment, and materials to off load equipment at jobsite per scheduled delivery.
5. Provide storage containers for material, (including electrical components enclosures), as needed.
6. Provide necessary waste disposal and daily cleanup.
7. Provide adequate security to protect Musco delivered products from theft, vandalism or damage during the installation.
8. Keep all heavy equipment off playing surfaces when possible. Repair damage to grounds which exceeds that which would be expected. Indentations caused by heavy equipment traveling over dry ground would be an example of expected damage. Ruts and sod damage caused by equipment traveling over wet grounds would be an example of damage requiring repair.
9. Provide startup and aiming as required to provide complete and operating sports lighting system.
10. Installation to commence upon delivery and proceed without interruption until complete. Notify Musco immediately of any breaks in schedule or delays.

Foundations, Poles, and Luminaires:

1. Confirm pole locations per the surveyed locations and aiming diagram provided. If there are any issues, immediately notify your Musco Project Manager.
2. Provide labor, materials, and equipment to install (10) LSS foundations as specified on layout and per the stamped foundation drawings, if applicable.
3. Remove spoils to owner designated location at jobsite.
4. Provide labor, materials, and equipment to assemble Musco TLC-LED luminaires, electrical component enclosures, poles, and pole harnesses.
5. Provide labor, equipment, and materials to erect (10) dressed LSS Poles and aim utilizing the pole alignment beam.
6. Ground poles per code requirements.

C. LIGHTING DESIGN

We Make It Happen®



Sports Illustrated Stadium, Harrison, New Jersey, USA

UBS Arena, Elmont, New York, USA

Iowa Women of Achievement Bridge, Des Moines, Iowa, USA

Tottenham Hotspur FC Training Ground, Tottenham, London, UK

Palm Coast Indian Trails Sports Complex Fields 6-8

Palm Coast,FL

Sales Representative: Danny Sheldon · Designed By: Eli Whitney · Design No.: 246756A · January 28, 2026

Palm Coast Indian Trails Sports Complex Fields 6-8

Palm Coast,FL

LIGHTING SYSTEM

Structure/Fixture Summary

Structure ID	Structure Height	Fixt. Attachment Ht.	Fixture Qty	Fixture Type	Load	Circuit
S1-S2	70'	70'	5	TLC-LED-1200	5.85 kW	A
S3	70'	70'	5	TLC-LED-1200	5.85 kW	A
		70'	5	TLC-LED-1200	5.85 kW	C
S4	70'	70'	5	TLC-LED-1200	5.85 kW	A
		70'	5	TLC-LED-1200	5.85 kW	B
S5-S7	70'	70'	5	TLC-LED-1200	5.85 kW	B
S8-S9 S11	70'	70'	5	TLC-LED-1200	5.85 kW	C
10			**60**		**70.20 kW**	

Circuit Summary

Circuit	Description	Load	Fixture Qty
A	Soccer 1	23.40 kW	20
B	Soccer 2	23.40 kW	20
C	Soccer 3	23.40 kW	20

Fixture Type Summary

Type	Circuit	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-1200	A	LED 5700K - 75 CRI	1170W	150,000	>120,000	>120,000	>120,000	20
TLC-LED-1200	B	LED 5700K - 75 CRI	1170W	150,000	>120,000	>120,000	>120,000	20
TLC-LED-1200	C	LED 5700K - 75 CRI	1170W	150,000	>120,000	>120,000	>120,000	20

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-1200	6.9	6.5	6.0	5.2	4.2	3.8	3.0

Light Level Summary

Calculation Grid Summary

Grid Name	Calculation Metric	Illumination Ave					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Soccer 6	Horizontal Illuminance	33.47	24.72	44.89	1.82	1.35	A	20
Soccer 7	Horizontal Illuminance	31.34	20.82	39.15	1.88	1.50	B	20
Soccer 8	Horizontal Illuminance	32.10	25.02	40.01	1.60	1.28	C	20

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
2	S1-S2	70'	-	70'	TLC-LED-1200	5	5	0
2	S3-S4	70'	-	70'	TLC-LED-1200	5/5*	5	5
4	Totals					30	20	10

Above Field Level is height of fixtures above area shown

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

SCALE IN FEET 1 : 40

0' 40' 80'

ENGINEERED DESIGN By: Eli Whitney • File #246756A • 28-Jan-26

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

Palm Coast Indian Trails Sports Complex Fields 6-8

Palm Coast,FL

Grid Summary

Name:	**Soccer 6**
Size:	362' x 174'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

Illumination Summary

MAINTAINED HORIZONTAL FOOTCANDLES	Entire Grid
Guaranteed Average:	**30**
Scan Average:	33.47
Maximum:	44.89
Minimum:	24.72
Avg/Min:	1.35
Guaranteed Max/Min:	**2.5**
Max/Min:	1.82
UG (adjacent pts):	1.41
CU:	0.71
No. of Points:	72
FIXTURE INFORMATION	
Applied Circuits:	A
No. of Fixtures:	**20**
Total Load:	23.40 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 ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

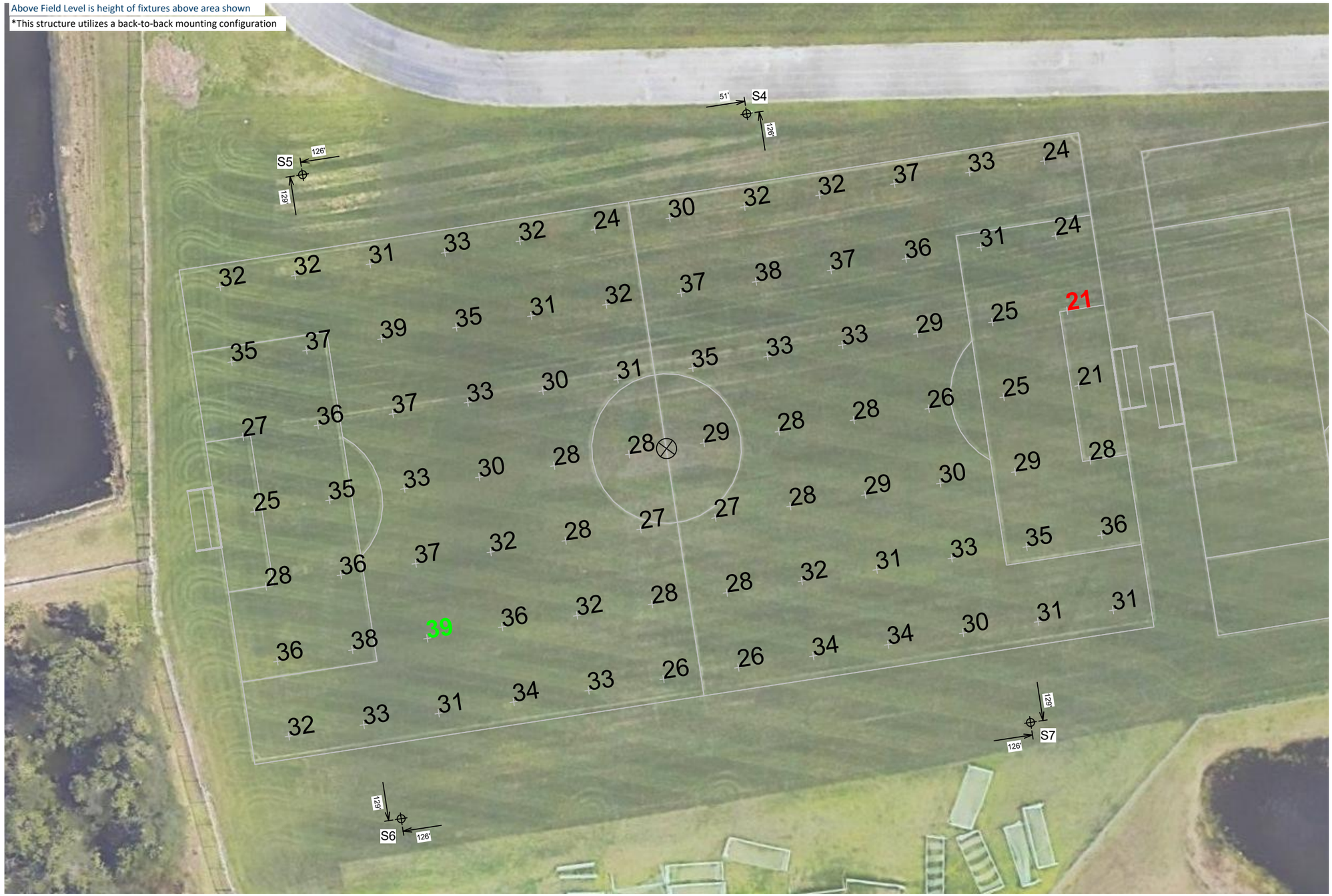
musco We Make It Happen.

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	S4	70'	-	70'	TLC-LED-1200	5/5*	5	5
3	S5-S7	70'	-	70'	TLC-LED-1200	5	5	0
4	Totals					25	20	5

Above Field Level is height of fixtures above area shown

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



SCALE IN FEET 1 : 40

0' 40' 80'

ENGINEERED DESIGN By: Eli Whitney • File #246756A • 28-Jan-26

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

Palm Coast Indian Trails Sports Complex Fields 6-8

Palm Coast,FL

Grid Summary

Name:	**Soccer 7**
Size:	360' x 198'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

Illumination Summary

MAINTAINED HORIZONTAL FOOTCANDLES	Entire Grid
Guaranteed Average:	**30**
Scan Average:	31.34
Maximum:	39.15
Minimum:	20.82
Avg/Min:	1.50
Guaranteed Max/Min:	**2.5**
Max/Min:	1.88
UG (adjacent pts):	1.37
CU:	0.77
No. of Points:	84
FIXTURE INFORMATION	
Applied Circuits:	B
No. of Fixtures:	**20**
Total Load:	23.40 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 ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

Palm Coast Indian Trails Sports Complex Fields 6-8

Palm Coast,FL

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	S3	70'	-	70'	TLC-LED-1200	5/5*	5	5
3	S8-S9 S11	70'	-	70'	TLC-LED-1200	5	5	0
4	Totals					25	20	5

Above Field Level is height of fixtures above area shown

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

Grid Summary

Name:	**Soccer 8**
Size:	348' x 194'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

Illumination Summary

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Guaranteed Average:	**30**
Scan Average:	32.10
Maximum:	40.01
Minimum:	25.02
Avg/Min:	1.28
Guaranteed Max/Min:	**2.5**
Max/Min:	1.60
UG (adjacent pts):	1.47
CU:	0.79
No. of Points:	84
FIXTURE INFORMATION	
Applied Circuits:	C
No. of Fixtures:	**20**
Total Load:	23.40 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 ± 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'

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

ENGINEERED DESIGN By: Eli Whitney • File #246756A • 28-Jan-26

Palm Coast Indian Trails Sports Complex Fields 6-8

Palm Coast,FL

Equipment Layout

INCLUDES:
· Soccer 6
· Soccer 7
· Soccer 8

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	GLOBAL ELEVATION	ABOVE GLOBAL LEVEL	FIXTURE TYPE	QTY/POLE
8	S1-S2 S5-S9 S11	70'	-	70'	TLC-LED-1200	5
2	S3-S4	70'	-	70'	TLC-LED-1200	5/5*
10	Totals					60

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

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)						
Single Phase Voltage	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
TLC-LED-1200	6.9	6.5	6.0	5.2	4.2	3.8	3.0

SCALE IN FEET 1 : 70

0' 70' 140'

ENGINEERED DESIGN By: Eli Whitney • File #246756A • 28-Jan-26

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

D. CONTROLS AND MONITORING

System Requirements: Control System Summary

Project Name: Palm Coast Indian Trails Sports Complex Fields 6-8 | Project #: 246756
Control System ID: 1 of 1
Distribution Panel Location/ID: Service 1

Project Information

Control System

Control System ID:	1 of 1
Control System Type:	Control-Link® Control and Monitoring System
Communication Type:	PowerLine-ST

Power Requirements

Control cabinet(s):	
Control voltage (phase to neutral)	120/60
VA loading - Inrush	3513.0
VA loading - Sealed	388.0
Lighting Circuits:	
Voltage/Hertz/Phase	480/60/3

Project Notes:

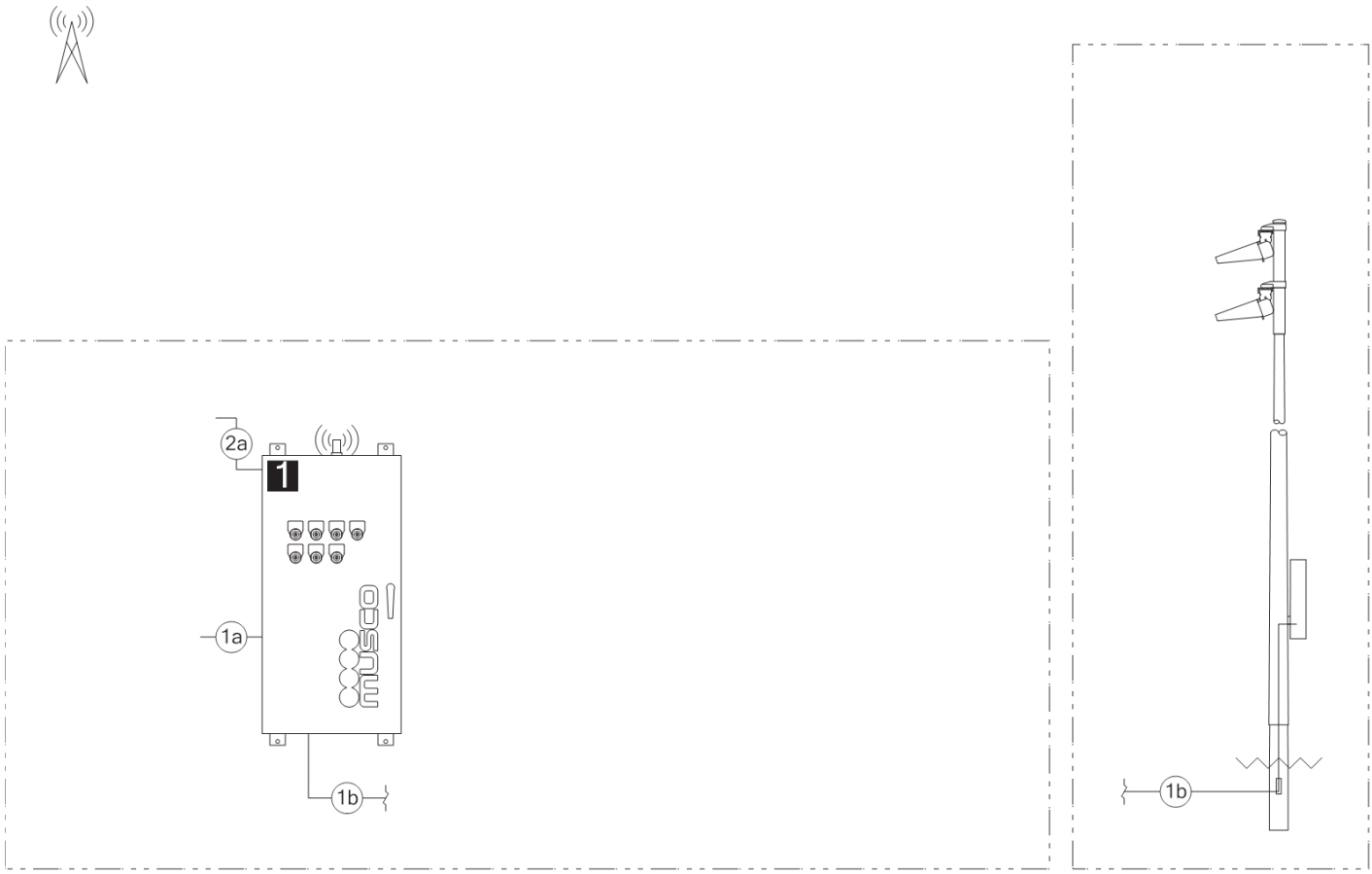
Equipment Listing

Description	Qty	Size (in)
Control and monitoring cabinet - primary	1	24 X 72
Contactors, 30 amperes	12	-
Off/On/Auto switches	3	-

Important Notes:

1. Please confirm that the lighting circuit voltage listed above is accurate for this facility. This is the voltage/phase being connected and utilized at each lighting pole's electrical components enclosure disconnect. Inaccurate voltage/phase can result in additional costs and delays. Contact your Musco sales representative to confirm this item.
2. In a 3 phase design, all 3 phases are to be run to each pole location. Musco's single phase luminaires come pre-wired to utilize all 3 phases across the entire facility.
3. One contactor is required for each circuit at each pole location. Contactors are 3 pole and 100% rated for the published continuous load.
4. If the lighting system will be fed from more than one distribution location, additional equipment may be required. Contact your Musco sales representative.
5. Size overcurrent devices using the full load amps column of the Circuit Summary by Switch chart (Minimum power factor is 0.9). Size conduit per code unless otherwise specified as larger to allow for harness connectors.
6. Avoid use of in-ground junction/pull boxes when possible. If used, the following best practices must be followed:
   • Underground handholes (pull boxes) must be supported to prevent settling. Boxes buried directly in soil, without support, are not allowed.
   • Use polymer concrete lids marked with ELECTRIC for underground handholes. Steel lids are not allowed.
   • Avoid underground connections when possible. If used, all wire connectors must be UL listed for Wet Locations to prevent leakage current.
7. Control power wiring must be in separate conduit from line or load power wiring. Communication cables must be in separate conduit from any power wiring.
8. Test wire per ANSI/NETA ATS-2021. Wires with insulation resistance less than 100 MOhms, in water-filled conduit, must be replaced.
9. Refer to Installation Instructions for more details on equipment information and the installation requirements.

Equipment Layout and Connection Details



Connection Details	
ID	**Description**
1a	Line power to contactors, and equipment grounding conductor. Requires one circuit per contactor, size wiring per load and voltage drop.
1b	Load power from contactors, and equipment grounding conductor. Requires one circuit per contactor, size wiring per load and voltage drop.
2a	Control power with equipment ground to control cabinet. Requires dedicated 20 A circuit. Provide transformer if control voltage not present.

Equipment	
ID	**Description**
1	Control and monitoring cabinet - primary

System Requirements: Control System Summary

Project Name: Palm Coast Indian Trails Sports Complex Fields 6-8 | Project #: 246756
Control System ID: 1 of 1
Distribution Panel Location/ID: Service 1

Circuit Summary

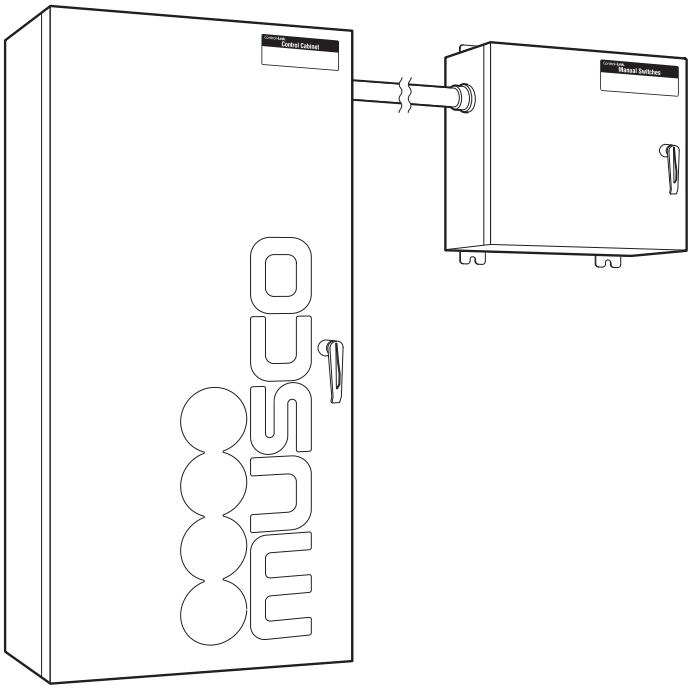
Zone Schedule		Switch Location
Field/Zone Description	Zone	
Soccer 6	1	Cabinet 1
Soccer 7	2	Cabinet 1
Soccer 8	3	Cabinet 1

Control Module ID: 1

Lighting Circuit Voltage: 480/60/3

Circuit Summary by Switch							
Switch	Zone Description	Pole ID	Qty of Fixtures	Full load amperes	Contactor Size (Amps)	Cabinet #	Contactor ID
1	Soccer 6	S1	5	10.39	30	1	C1
	Soccer 6	S2	5	10.39	30	1	C2
	Soccer 6	S3	5	10.39	30	1	C3
	Soccer 6	S4	5	10.39	30	1	C4
2	Soccer 7	S4	5	10.39	30	1	C5
	Soccer 7	S5	5	10.39	30	1	C6
	Soccer 7	S6	5	10.39	30	1	C7
	Soccer 7	S7	5	10.39	30	1	C8
3	Soccer 8	S3	5	10.39	30	1	C9
	Soccer 8	S8	5	10.39	30	1	C10
	Soccer 8	S9	5	10.39	30	1	C11
	Soccer 8	S11	5	10.39	30	1	C12

Datasheet: **Control-Link® Control System with Manual Switches Cabinet**



Overview

Control-Link® control system provides flexible remote on/off control of your lighting system and allows switch placement in a convenient remote location.

Features

Control

- Existing Musco or other manufacturer's lighting system and auxiliary equipment
- Customized on/off control via phone, website, smartphone application, email, or fax up to 10 years in advance
- Multi-level user security settings
- Remote-mounted on/off/auto switches allow manual or automated control
- Seven controllable lighting zones
- Cabinets securable with customer-supplied padlocks

Management and Support

- Control-Link Central™ service center provides support 24 hours a day, 7 days a week for scheduling, monitoring, and reporting
- Customized usage reports through website

Technical Specifications

Ratings

UL 508A Listed.....E204954

FCC Part 15 .....Class A compliant

Operating temperature .....-4 ˚F to 140 ˚F (-20 ˚C to 60 ˚C)

Weight for control cabinet..... 33 lb (15 kg)

Weight for manual switches cabinet ..... 25 lb (10 kg)

Maximum distance from control cabinet to switches.....300 ft (75 m with metric wire)

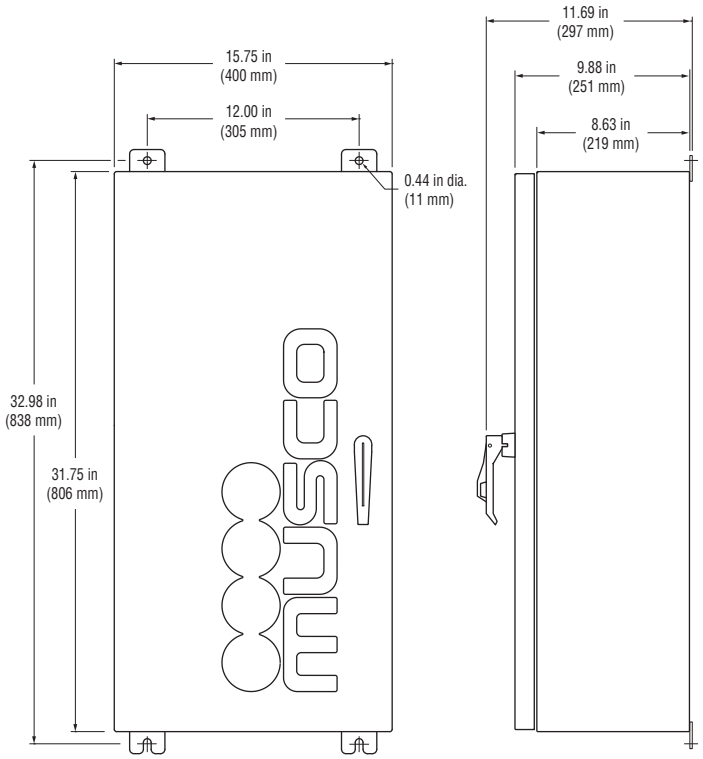
Construction

Control Cabinet

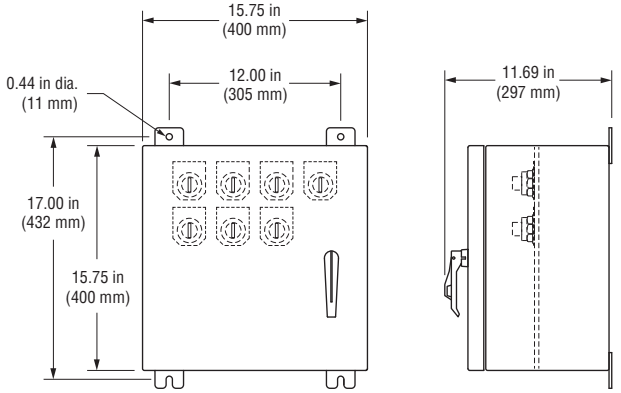
- NEMA type 4 cabinet
- Powder-coated aluminum 5052 H32 cabinet and panel
- Lockable door
- External mounting feet
- Requires 120 V phase-to-neutral control voltage

Manual Switches Cabinet

- NEMA type 4 cabinet
- Powder-coated aluminum 5052 H32 cabinet and panel
- Lockable door



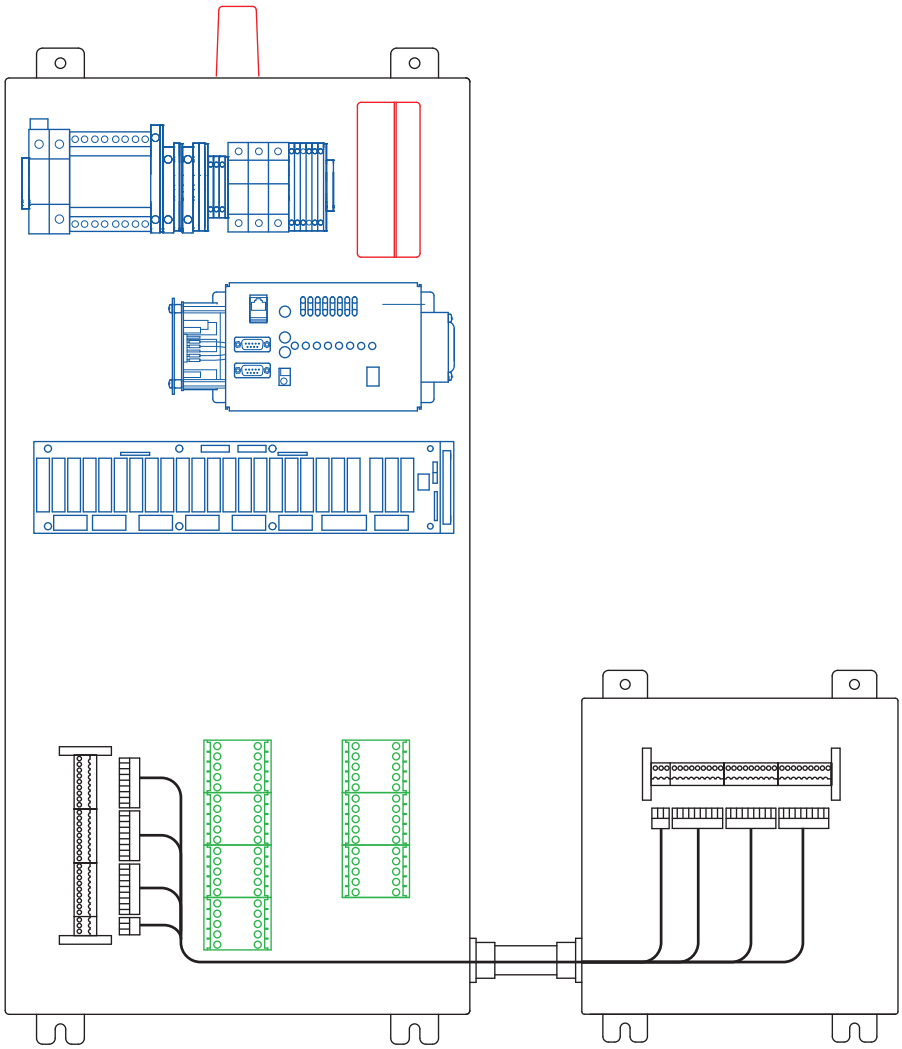
Control cabinet



Manual switches cabinet

Internal Details

- Factory wired, programmed, and tested
- Internally fused
- Control power terminal blocks provided
- Plug-in connectors provided to connect control cabinet to manual switches cabinet (wiring between cabinets provided by contractor)
- Interposing relays provided to interface with existing contactors



Control Module

Receives and stores schedules from Control-Link Central™ service center, operates your equipment, and verifies schedules were carried out.

- Stores and executes schedules for up to 7 days
- Reboots automatically and executes current schedule when power is restored, in case of power interruption

Communication Module

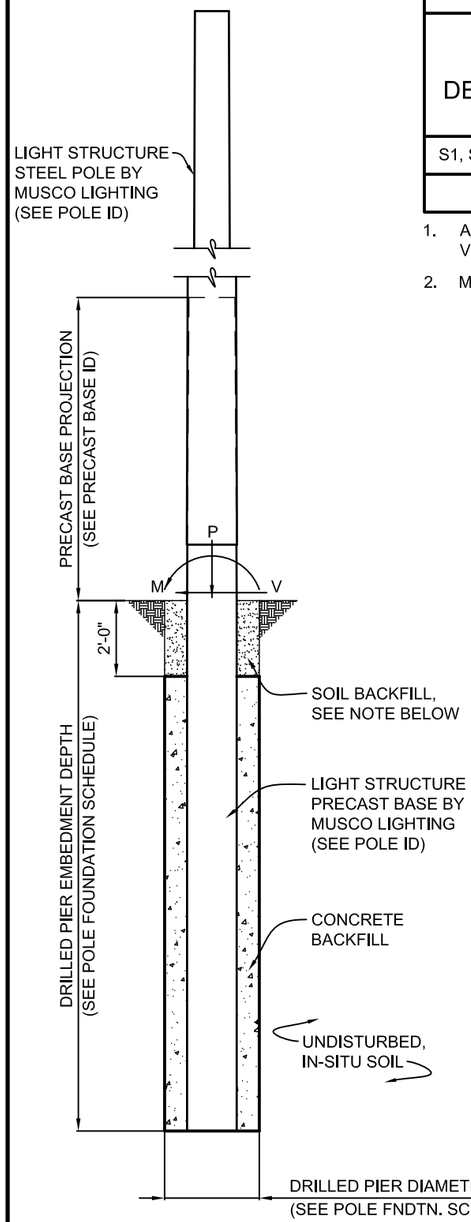
Integrated communication system provides two-way reliable, high speed communication to Control-Link Central service center with no additional monthly charges during warranty period.

Interposing Relays

Interposing relays control existing contactors.

- 10 A contacts
- 120 V coil

E. STRUCTURAL INFORMATION



POLE FOUNDATION ELEV.

SCALE: NOT TO SCALE

SOIL BACKFILL NOTE:
THE TOP TWO FEET OF ANNULUS SHALL BE BACKFILLED WITH SOIL, WITH A CLASSIFICATION OF CLASS 4 (TABLE 1806.2) OR BETTER.

POLE FOUNDATION SCHEDULE

POLE DESIGNATION	FORCES (1.)			DRILLED PIER		
	MOMENT (M) FT-LBS	SHEAR (V) LBS	VERTICAL (P) LBS	DIAMETER INCHES	EMBEDMENT DEPTH	CONCRETE BACKFILL YD^3 (2.)
S1, S2, S5, S6 - S9, S11	85,596	2,021	1,946	30	14'-0"	1.6
S3, S4	117,285	2,623	3,099	30	16'-0"	1.7

1. ASD LOAD COMBINATION D + 0.6W.
   VERTICAL FORCE IS WEIGHT OF DRESSED POLE (DOES NOT INCLUDE PRECAST BASE WEIGHT).
2. MINIMUM CONCRETE BACKFILL VOLUME, SITE CONDITIONS MAY REQUIRE ADDITIONAL BACKFILL.

PRECAST BASE IDENTIFICATION

PRECAST BASE TYPE	PRECAST BASE WEIGHT	PRECAST BASE LENGTH	PROJECTION ABOVE GRADE	STANDARD EMBEDMENT	OUTSIDE DIAMETER
4B	3,490 LBS	22'-0"	8'-0"	14'-0"	15.75"
5B	4,580 LBS	23'-11"	7'-11"	16'-0"	18.25"

POLE IDENTIFICATION

POLE DESIGNATION	POLE TYPE	PRECAST BASE TYPE	FIXTURE CONFIGURATION (FIX. PER XARM)	FIXTURE AND ACCESSORIES EPA (FT^2)
S1, S2, S5, S6 - S9, S11	LSS70C	4B	5 (5)	10.2
S3, S4	LSS70D	5B	10 (5) / (5)	18.3

DESIGN NOTES

DESIGN PARAMETERS:
WIND: V_{ult} = 140 MPH, V_{asd} = 108 MPH (EXPOSURE C, RISK CATEGORY II)
PER FBC, 2023 EDITION (ASCE 7-22), SECTION 1609

GEOTECHNICAL PARAMETERS:
ALLOWABLE END BEARING SOIL PRESSURE: 2,000 PSF OR SKIN FRICTION: 367 PSF
ALLOWABLE LATERAL SOIL BEARING PRESSURE: 300 PSF/FT (NEGLECT TO -2'-0")
IN ACCORDANCE WITH THE 2023 EDITION OF THE FLORIDA BUILDING CODE, CHAPTER 18.
SEE TABLE 1806.2, SOIL MATERIAL CLASS 4 & SECTION 1806.3.4.

A GEOTECHNICAL ENGINEER OR REPRESENTATIVE OF IS RECOMMENDED (NOT REQUIRED) TO BE AVAILABLE AT THE TIME OF THE FOUNDATION INSTALLATION TO VERIFY THE SOIL DESIGN PARAMETERS AND TO PROVIDE ASSISTANCE IF ANY PROBLEMS ARISE IN FOUNDATION INSTALLATION.

ENCOUNTERING SOIL FORMATIONS THAT WILL REQUIRE SPECIAL DESIGN CONSIDERATIONS OR EXCAVATION PROCEDURES MAY OCCUR. POLE FOUNDATIONS WILL NEED TO BE ANALYZED ACCORDING TO THE SOIL CONDITIONS THAT EXIST. IF ANY DISCREPANCIES OR INCONSISTENCIES ARISE, NOTIFY THE ENGINEER OF SUCH DISCREPANCIES. FOUNDATIONS WILL THEN BE REVISED ACCORDINGLY. REVISIONS WILL BE ANALYZED PER RECOMMENDATIONS DIRECTED BY A REGISTERED ENGINEER.

ALL EXCAVATIONS MUST BE FREE OF LOOSE SOIL AND DEBRIS PRIOR TO FOUNDATION INSTALLATION AND CONCRETE BACKFILL PLACEMENT. CONTRACTOR SHOULD BE PREPARED FOR THE POSSIBILITY OF GROUND WATER PUMPING AND EXCAVATION STABILIZATION AS CONDITIONS MAY REQUIRE. CASINGS OR DRILLERS SLURRY MAY BE USED TO STABILIZE THE EXCAVATION DURING INSTALLATION. TEMPORARY CASINGS MUST BE REMOVED DURING CONCRETE BACKFILL PLACEMENT. PERMANENT CASINGS MUST BE SMOOTH-SIDED STEEL PIPE, AND MUST BE INSERTED INTO PLACE FIRST PRIOR TO CLEANING OUT THE INSIDE SO THAT CONTINUOUS CONTACT WITH THE SURROUNDING UNDISTURBED SOILS IS MAINTAINED.

CONCRETE BACKFILL MUST BE PLACED WITH A TREMIE WHEN SLURRY OR WATER IS PRESENT WITHIN THE EXCAVATION. THE MOUTH OF THE TREMIE MUST REMAIN BURIED IN FRESH CONCRETE SO THAT THE CONCRETE DISPLACES WATER OR SLURRY WITHOUT MIXING.

CONCRETE:
CONCRETE SHALL BE AIR-ENTRAINED AND HAVE A MINIMUM COMPRESSIVE DESIGN STRENGTH AT 28 DAYS OF 3,000 PSI. POLE ERECTION MAY TAKE PLACE AFTER STRENGTH GAIN HAS REACHED 1,000 PSI MINIMUM, OR 24 HOURS HAVE ELAPSED FROM PLACEMENT. ALL PIERS AND CONCRETE BACKFILL MUST BEAR ON AND AGAINST FIRM UNDISTURBED SOIL, OR PERMANENT CASINGS WHERE UTLIZED.

GENERAL NOTES:
FIXTURES MUST BE LOCATED TO MAINTAIN 10'-0" MINIMUM HORIZONTAL CLEARANCE FROM ANY OBSTRUCTION. ENGINEER MUST BE NOTIFIED IF FOUNDATIONS ARE NEAR ANY RETAINING WALLS OR WITHIN / NEAR ANY SLOPES STEEPER THAN 3H : 1V. POLES, FIXTURES, PRECAST BASES, ELECTRICAL ITEMS AND INSTALLATION PER MUSCO LIGHTING.

KYLE G. LACINA LICENSE NO. 62692 STATE OF FLORIDA PROFESSIONAL ENGINEER
Kyle G. Lacina
Digitally signed by Kyle G. Lacina
Date: 2026.02.27 10:08:49 -06'00'
02/27/2026

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY KYLE G. LACINA ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

KYLE G. LACINA - NO. PE 62692
LICENSE RENEWAL DATE: FEBRUARY 28, 2027

STRUCTURAL ENGINEERS, P.C. - NO. 26361

DRAWING NO. COVERED BY THIS SEAL: C1

PALM COAST INDIAN TRAILS
SPORTS COMPLEX
FIELDS 6-8 LIGHTING
PALM COAST, FL

musco Lighting
CORPORATE: 100 1st AVE WEST
OSKALOOSA, IA 52577
(800) 825-6020

STRUCTURAL ENGINEERS, P.C.
114 NICHOLAS DRIVE
MARSHALLTOWN, IOWA 50158
PHONE NUMBER: 641-752-6334
EMAIL: MSL.INFO@SEPC.BIZ

DRAWING TITLE: POLE AND FOUNDATION
SCALE: SEE PLAN
NOTES: SCAN #246756A

PROJECT NUMBER 246756

DATE 27 FEBRUARY 2026

DRAWING NUMBER C1
OF ONE

F. WARRANTY

Musco Constant 25™

25-Year Product Assurance & Warranty Program

Project name: Palm Coast Indian Trails Sports Complex Fields 6-8 **Project number:** 246756

Owner: City of Palm Coast **City:** Palm Coast **State:** FL

Covered product(s): Light-Structure System™ with TLC for LED® technology and Control-Link®

Date issued: Date of Shipment **Expiration:** Date of Shipment + 25 Years

Musco Sports Lighting, LLC will provide all materials and labor to maintain operation of your lighting system to original design criteria for 25 years. Musco products and services are guaranteed to perform on your project as detailed in this document.

Light Performance

Specified illumination levels will be maintained and are marked as guaranteed in the Musco Illumination Summary.

Individual luminaire outages that occur during the warranty and maintenance period are repaired when the usage of any field is materially impacted.

Spill Light Control

If specified, spill light levels at identified locations are guaranteed to be controlled to the maximum values provided in the Musco Illumination Summary.

Energy Consumption

Total average kW consumption for your lighting system is guaranteed to be not more than the total load shown in the Musco Illumination Summary.

Monitoring, Maintenance, and Control Services

Musco shall monitor the performance of your lighting system, including on/off status, hours of usage, and luminaire outages. If outages that affect playability are detected, Musco will contact you and proactively dispatch technicians.

On-off control of your lighting system is provided via an easy-to-use web site scheduling system, smartphone app, phone, email, or fax. Our trained Control-Link Central™ service center staff is available toll-free 24/7. Regular usage reports are always available on Control-Link Central's web site.

Structural Integrity

Your project has been designed to FBC 2023, 140 mph, Exposure C .
Structural integrity of equipment manufactured by Musco is guaranteed.

Musco has a team of people to ensure fulfillment of our product and services warranty and maintains financial reserves dedicated to support our fulfillment of this warranty. Please keep this document as your signed contract guaranteeing comprehensive service for the 25 year period.

Musco Constant 25™

25-Year Product Assurance & Warranty Program

Terms and Conditions

Service under this Contract is provided by Musco Sports Lighting, LLC ("Musco") or an authorized servicer approved by Musco. Services performed under this Contract shall consist of furnishing labor and parts necessary to restore the operation of the Covered Product(s) to original design criteria provided such service is necessitated by failure of the Covered Product(s) during normal usage. This Contract covers Musco manufactured product(s) listed on page 1.

"We", "us," and "our" mean Musco. "You" and "your" mean the purchaser of the Covered Product(s). No one has the authority to change this Contract without the prior written approval of Musco. Musco shall not assume responsibility for their agents or assignees other than as described below. If there is a conflict between the terms of this Contract and information communicated either orally or in writing by one or more of our employees or agents, this Contract shall control.

Additional Provisions

1. **Availability of Service:** Control-Link Central™ operators shall be available 24/7 via web site, phone, fax, or email. Maintenance service specialists shall be available 8AM to 5PM Central Time, and services shall be rendered during these same hours in your local time zone, Monday through Friday (with the exception of national holidays). Hours of operation are subject to change without notice to you. Musco will exercise all reasonable efforts to perform service under this Contract, but will not be responsible for delays or failure in performing such services caused by adverse weather conditions, acts of any government, failure of transportation, accidents, riots, war, labor actions or strikes or other causes beyond its control.

2. **Determination of Repairs:** Musco will utilize the field monitoring system and any information provided by the customer to determine when the usage of the field is materially impacted. From this information, Musco will determine needed repair and/or replacement of Covered Product(s) and parts. Repair will be with Product(s) of like kind and quality.

3. **Your Requirements Under this Contract:** You must meet all electrical and installation requirements as specified by the manufacturer. In addition, you promise and assure: full cooperation with Musco, Musco's technicians and authorized servicers during telephone diagnosis and repair of the Covered Product(s); reasonable accessibility of the Covered Product(s); a nonthreatening and safe environment for service.

   You agree to check fuses and to replace fuses as needed. Musco provides spare fuses in the lowest alpha-numeric numbered enclosure. Musco will replenish spare fuses used.

   You agree to keep your control system online. This means keeping the required control voltage to the control system at all times. Any deviation from this practice must be discussed with Musco's Warranty Department.

4. **Service Limitations — This Contract does not cover:** Maintenance, repair, or replacement necessitated by loss or damage resulting from any external causes such as, but not limited to, theft, environmental conditions, negligence, misuse, abuse, improper electrical/power supply, unauthorized repairs by third parties, attachments, damage to cabinetry, equipment modifications, vandalism, animal or insect infestation, physical damage to Covered Product(s) parts or components, failure of existing structures, supporting electrical systems or any non-Musco equipment, or acts of God/nature (including, but not limited to: earthquake, flood, tornadoes, typhoons, hurricanes, or lightning).

5. **Contract Limitations:**

   a. EXCLUSIONS FROM COVERAGE: IN NO EVENT WILL MUSCO BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES WHICH INCLUDE, BUT ARE NOT LIMITED TO, ANY DELAY IN RENDERING SERVICE OR LOSS OF USE DURING THE REPAIR PERIOD OF THE COVERED PRODUCT(S) OR WHILE OTHERWISE AWAITING PARTS.

   b. Limitation of Liability: To the extent permitted by applicable law, the liability of Musco, if any, for any allegedly defective Covered Product(s) or components shall be limited to repair or replacement of the Covered Product(s) or components at Musco's option. THIS CONTRACT IS YOUR SOLE EXPRESS WARRANTY WITH RESPECT TO THE COVERED PRODUCT(S). ALL IMPLIED WARRANTIES WITH RESPECT TO THE COVERED PRODUCT(S) INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXPRESSLY EXCLUDED.

   c. For the purposes of and by your acceptance of this Contract you acknowledge and agree that if a surety bond ("Bond") is provided the warranty and/or maintenance guarantee provided for in this Contract and any corresponding liability on behalf of the issuing surety under the Bond is limited to the first twelve (12) months of said warranty and/or maintenance guarantee coverage period. Any warranty and/or guarantee coverage period in excess of said initial 12 month period does not fall within the scope of the Bond and shall be the sole responsibility of Musco.

   d. Musco requires reasonable access for a crane or man lift equipment to service the lighting system. Musco will not be responsible for damage from operating the vehicle on the property when the equipment is operated in the prescribed manner over the designated access route.

   e. Obsolescence or Environmental Restrictions: If during any maintenance or other work performed under this Warranty, any of the parts of the Covered Product(s) are found to be either obsolete, no longer available, or prohibited by any state of federal agency, Musco shall replace said parts with comparable parts and materials with equal operating characteristics solely at Musco's discretion. The cost of replacement of any obsolete cellular related technology shall be borne by you. Prior to completing any such work, Musco shall notify you of the cost (if any) you will incur in the replacement of such parts under this section.

6. **Transfer and Assignment:** Except to owners, you shall not have the right to assign or otherwise transfer your rights and obligations under this Contract except with the prior written consent of Musco; however, a successor in interest by merger, operation of law, assignment or purchase or otherwise of your entire business shall acquire all of your interests under this Contract.

7. **Governing Law:** Unless otherwise governed by applicable state law, the Contract shall be interpreted and enforced according to the laws of the State of Iowa.

8. **Subrogation:** In the event Musco repairs or replaces any Covered Product(s), parts or components due to any defect for which the manufacturer or its agents or suppliers may be legally responsible, you agree to assign your rights of recovery to Musco. You will be reimbursed for any reasonable costs and expenses you may incur in connection with the assignment of your rights. You will be made whole before Musco retains any amounts it may recover.

Signature: _____

CEO

G. PRODUCT INFORMATION

TLC for LED®

5 Easy Pieces™

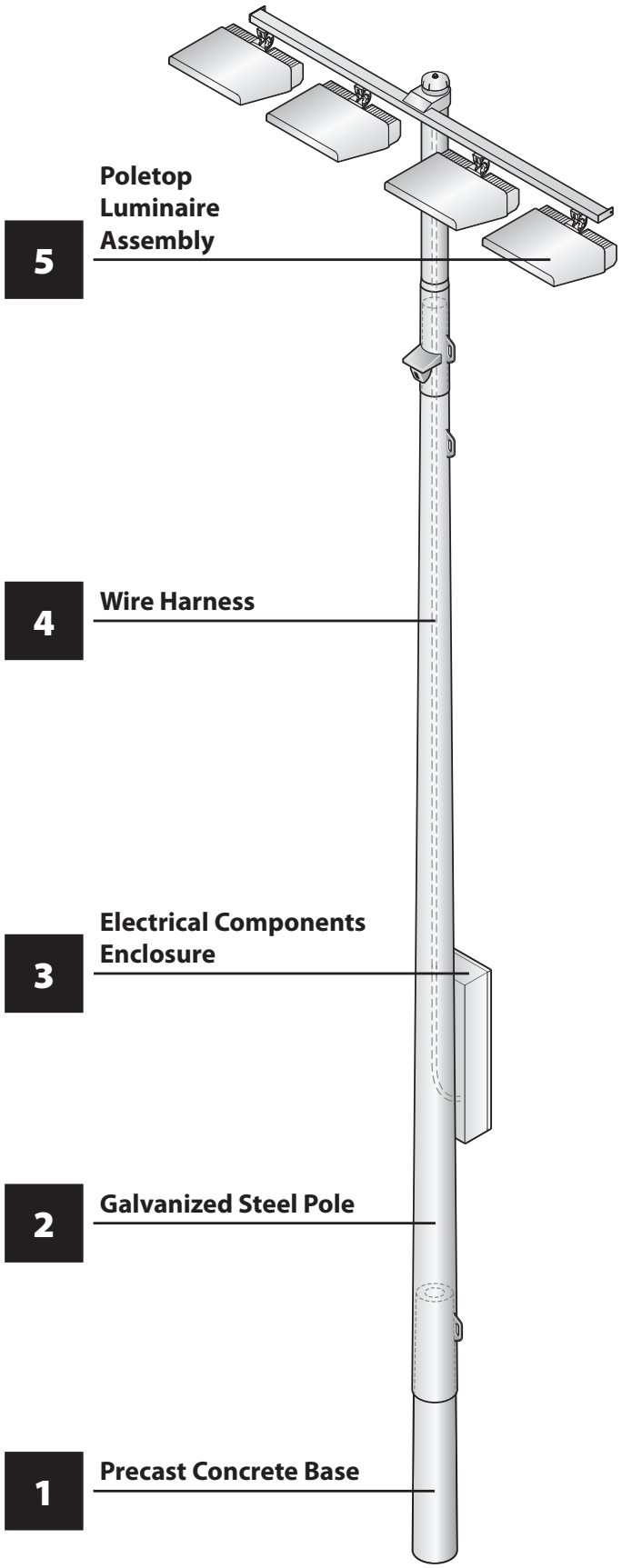
Complete System from Foundation to Poletop

Factory wired, aimed, and tested

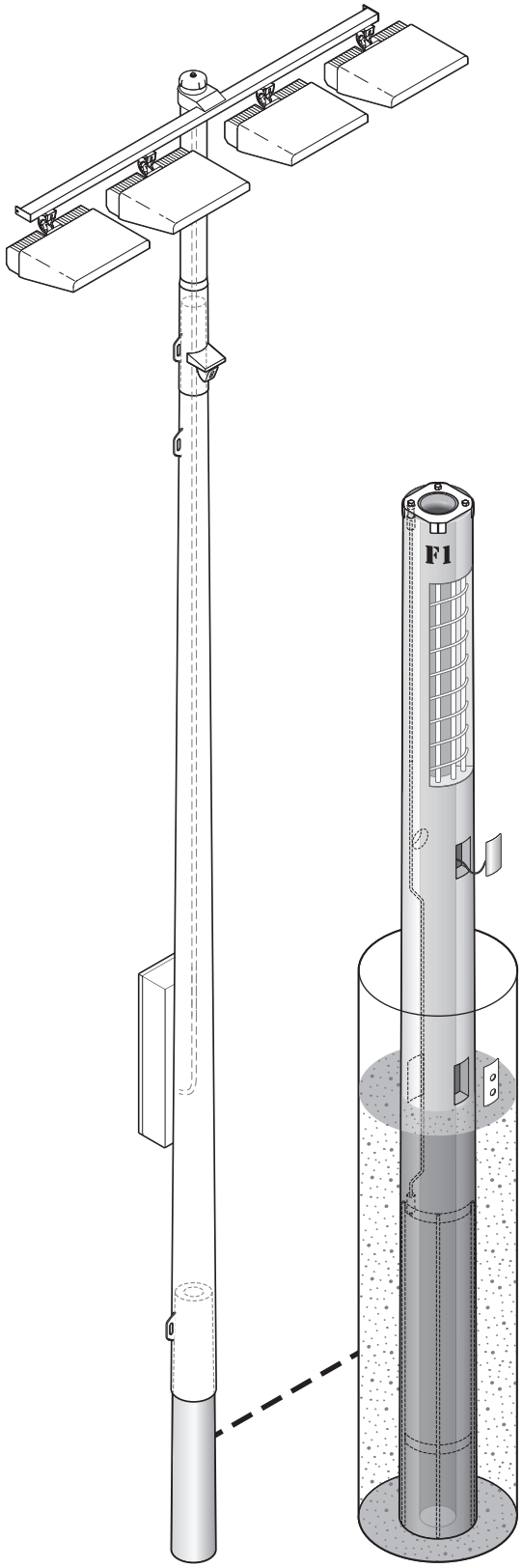
Fast, trouble-free installation

Comprehensive corrosion package

Integrated lightning ground



TLC for LED® – Precast Concrete Base



Overview

The precast concrete base is set directly into the ground and backfilled with concrete. The base includes an integrated lightning ground system.

Features

Base

- Set pole on base in 24 hours
- Tapered upper section for slip-fit steel pole
- Access holes for wire entry
- Epoxy-coated ends prevent water intrusion
- Lifting hole accepts load-rated steel rod provided by Musco

Integrated Lightning Ground System

- Complies with NFPA 780, UL 96A, and EN 62305 standards when installed per Musco installation instructions
- UL Listed, Class II Lightning Protection, file number E337467
- Tested up to 100 kA by independent laboratory
- Steel pole interfaces with integrated grounding system by means of the pole grounding connector
- 2/0 AWG (crossectional area of 67.4 mm^2) grounding electrode conductor
- Concrete-encased grounding electrode, 20 ft (6.1 m) total length, ½ in (12.7 mm) diameter

Technical Specifications

Base dimensions vary. For measurements refer to project-specific *Foundation and Pole Assembly Drawing*.

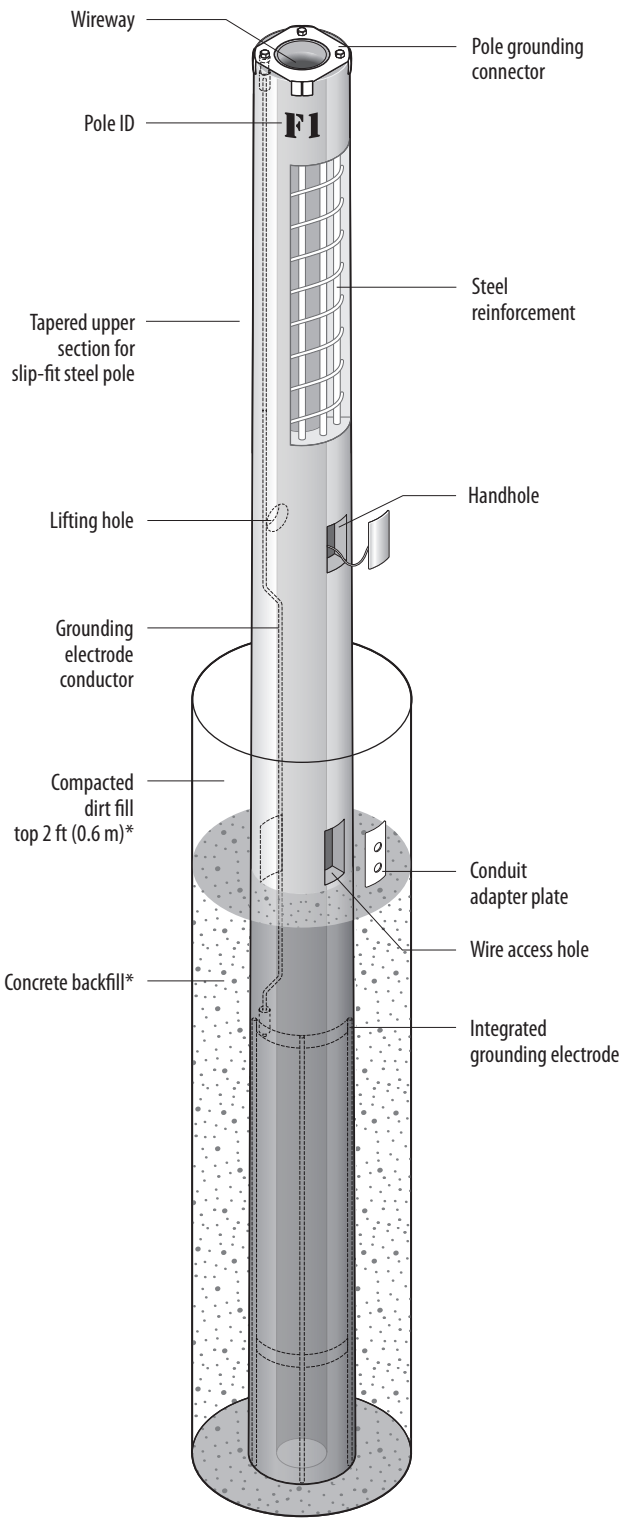
Construction

- Spun concrete construction
- Prestressed steel vertical strands and coil spiral for strength throughout base
- Minimum design strength is 9500 lb/in^2 (65.5 MPa) at 28 days
- Meets ASTM C1804 design requirements

Quality Assurance Tests

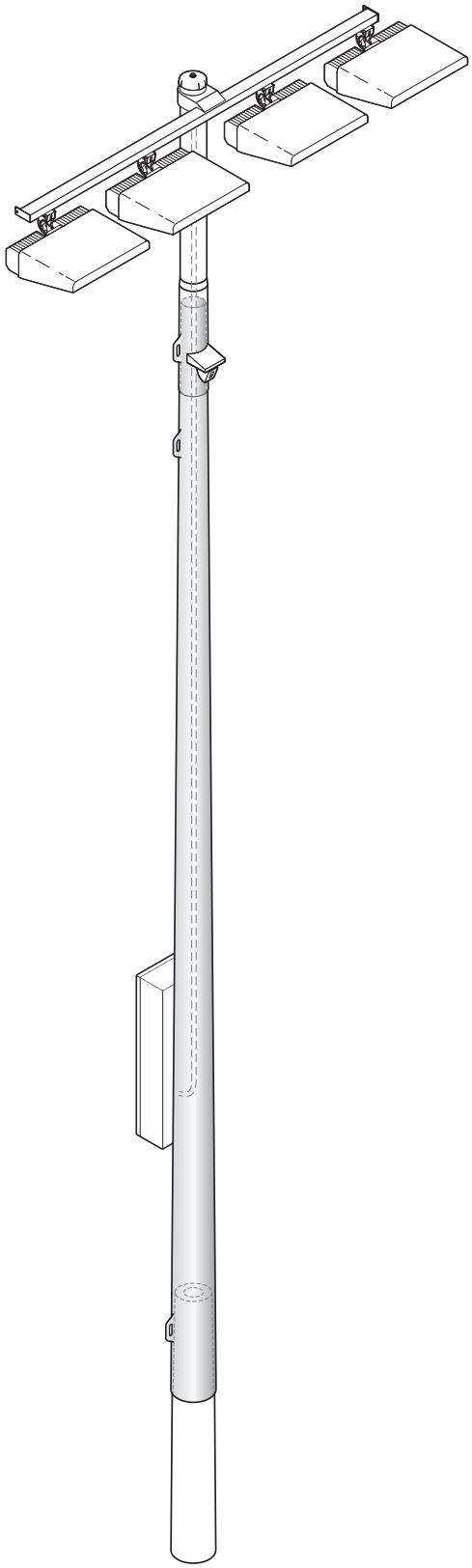
- 28-day compressive strength test on sample cylinder
- Bending moment capacity test on sample base
- Grounding system continuity
- Independent evaluation by ICC Evaluation Service, report #ESR-3765

TLC for LED® – Precast Concrete Base



*Standard pier foundation shown. Foundation and/or backfill may vary per alternate foundation design.

TLC for LED® – Galvanized Steel Pole



Overview

The galvanized steel pole is designed to slip-fit together with the precast concrete base and the poletop luminaire assembly.

Features

- Slip-fit connection allows pole assembly with come-alongs
- Built-in hardware for attaching electrical components enclosure
- Wire access from inside the pole (no exposed wiring or conduit)
- Shipped in sections for easier handling
- Labeled with pole identification for location on field

Technical Specifications

Pole dimensions vary. For measurements refer to project specific pole configuration drawing.

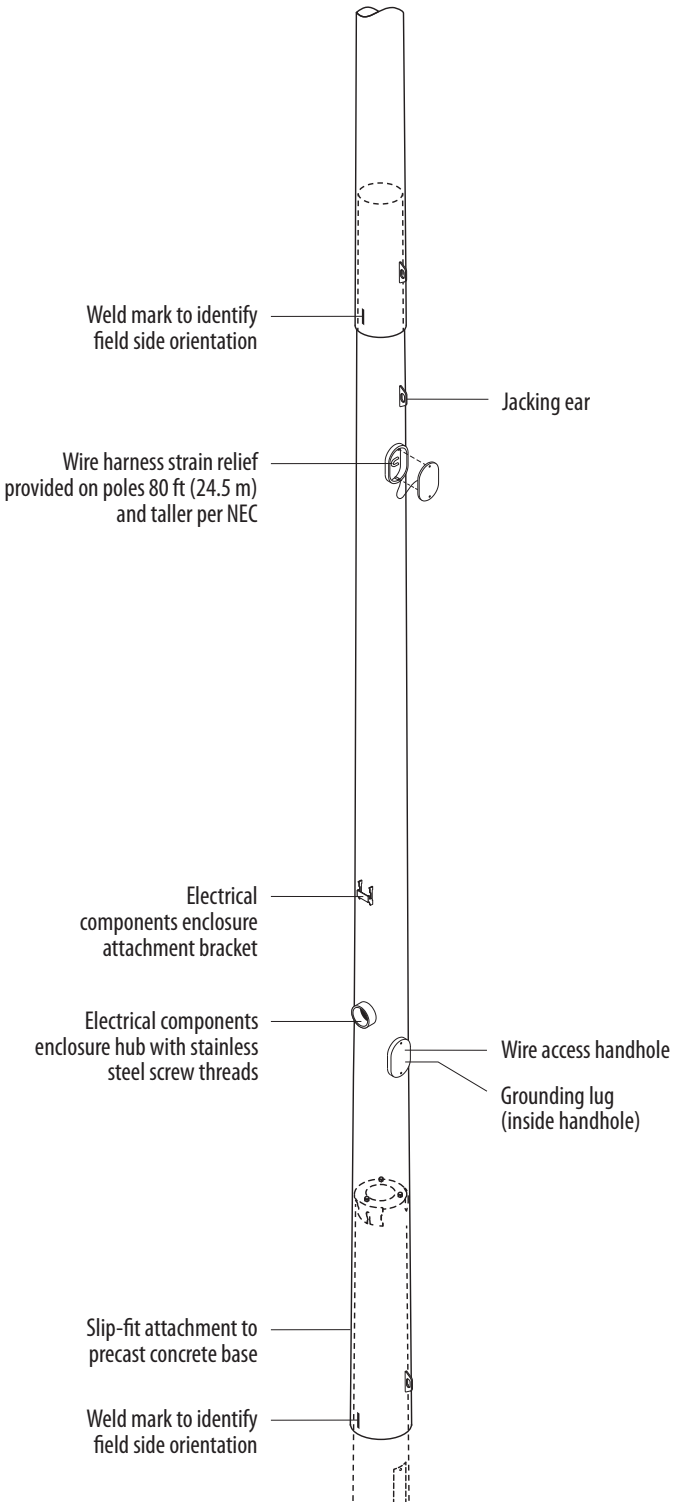
Construction

- Pole designs are tailored to meet the specific building codes and regulatory requirements of the project's location and region
- High strength, low alloy, tapered, round steel pole
- Hot-dip galvanizing inside and outside after fabrication meets ASTM-A123 standard
- Grounding lug—rated for copper (CU) wiring
- Stainless steel fasteners passivated and coated

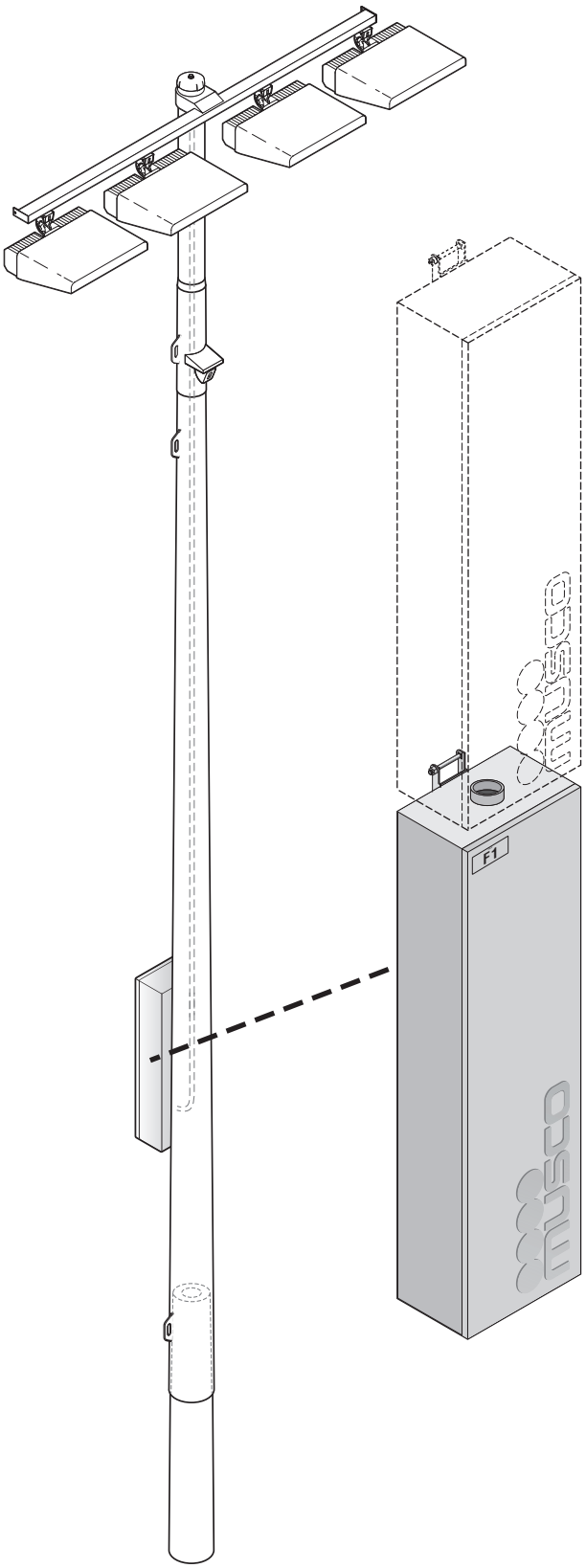
Quality Assurance Tests

- Material certifications are available upon notice prior to fabrication
- Straightness verification prior to shipment
- Galvanization thickness test

TLC for LED® – Galvanized Steel Pole



TLC for LED® – Electrical Components Enclosure



Overview

The electrical components enclosure contains all necessary equipment to operate luminaires. Built-in mounting hardware allows for easy attachment to the galvanized steel pole. Quick connect plugs fasten to the wire harness.

Features

- Factory-built and tested as a unit
- Quick connect plug for easy field wiring
- Mounted 10 ft (3 m) above grade for servicing with ladder
- Labeled with pole identification and electrical information
- Drivers individually fused and spare fuses supplied
- Wire access from inside the pole (no exposed wiring or conduit)
- Disconnect per circuit

Technical Specifications

For amperage draws and circuitry refer to project specific document.

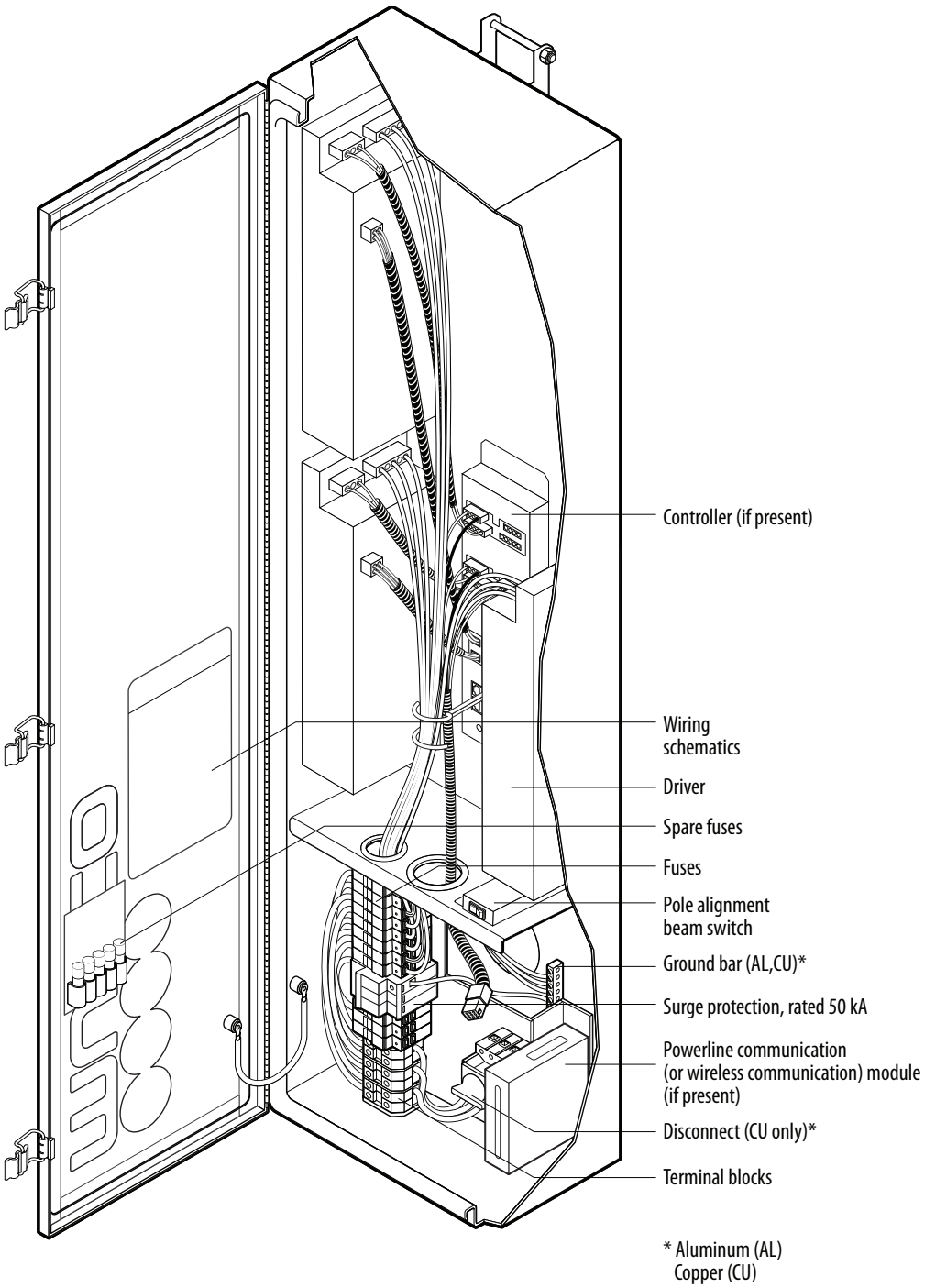
Construction

- 0.08 inch (2 mm) thick, powder-coated aluminum
- Enclosure ratings: NEMA 3R, IP54
- Designed to operate in up to 50˚ C (122˚ F) ambient temperature
- Full length stainless steel hinge
- All stainless steel fasteners passivated and coated
- Meets touchsafe standards
- Up to four drivers per enclosure
- Approximate weight 65 lb (29 kg)
- Lower enclosure size 14 in (356 mm) wide x 9 in (229 mm) deep x 52.5 in (1334 mm) high
- Upper enclosure size 14 in (356 mm) wide x 9 in (229 mm) deep x 40.5 in (1029 mm) high

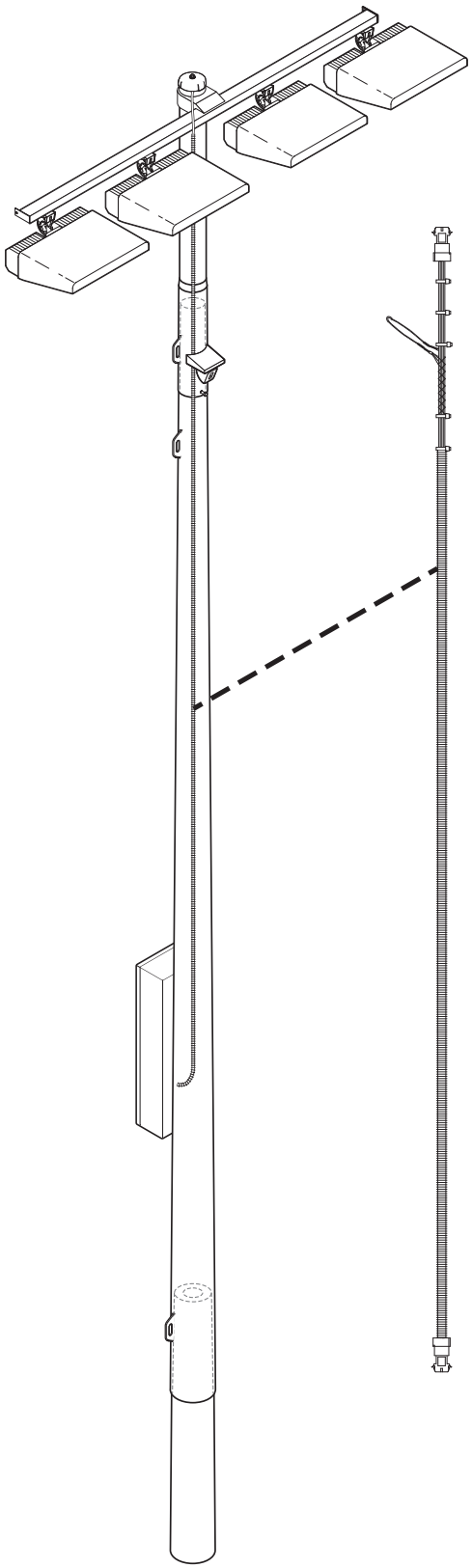
Quality Assurance Tests

- High potential dielectric withstand
- Full functionality test based on project's voltage and simulated load

TLC for LED® – Electrical Components Enclosure



TLC for LED® – Wire Harness



Overview

The factory-built wire harness connects the electrical components enclosure to the poletop luminaire assembly.

Features

- Quick connect plugs for easy field wiring
- Factory-assembled support grip alleviates strain on connections
- Spiral wound cable eliminates slippage
- Protective sleeve prevents wire damage
- All internal wiring, no exposed wires
- Labels identify pole and luminaires

Technical Specifications

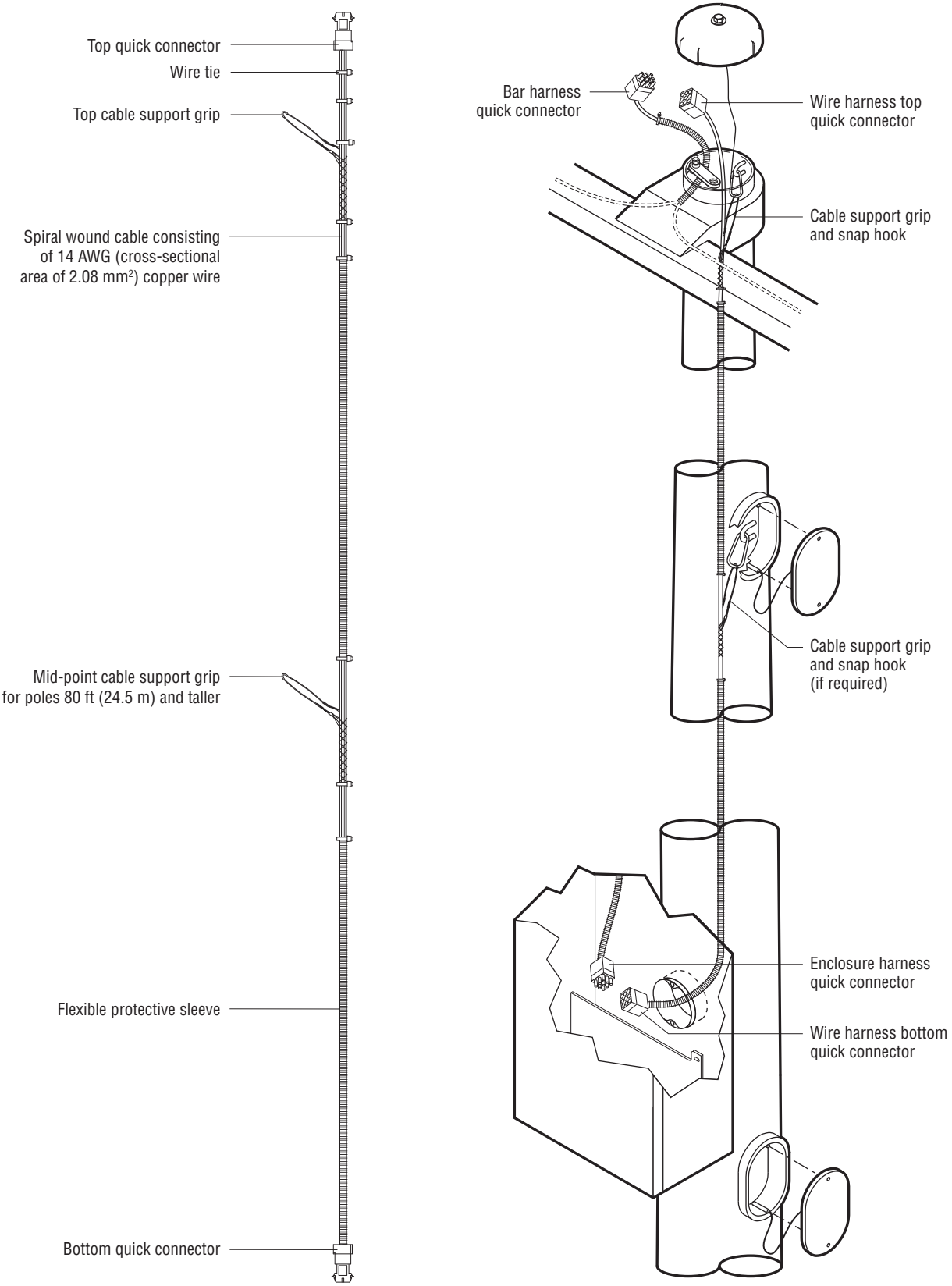
Construction

- Spiral wound, wrapped cable, 14 AWG (cross-sectional area of 2.08 mm^2) copper wire
- Integral cable support grip
- Each harness supports up to four drivers
- Multiple top connectors may be present if required for number of luminaires

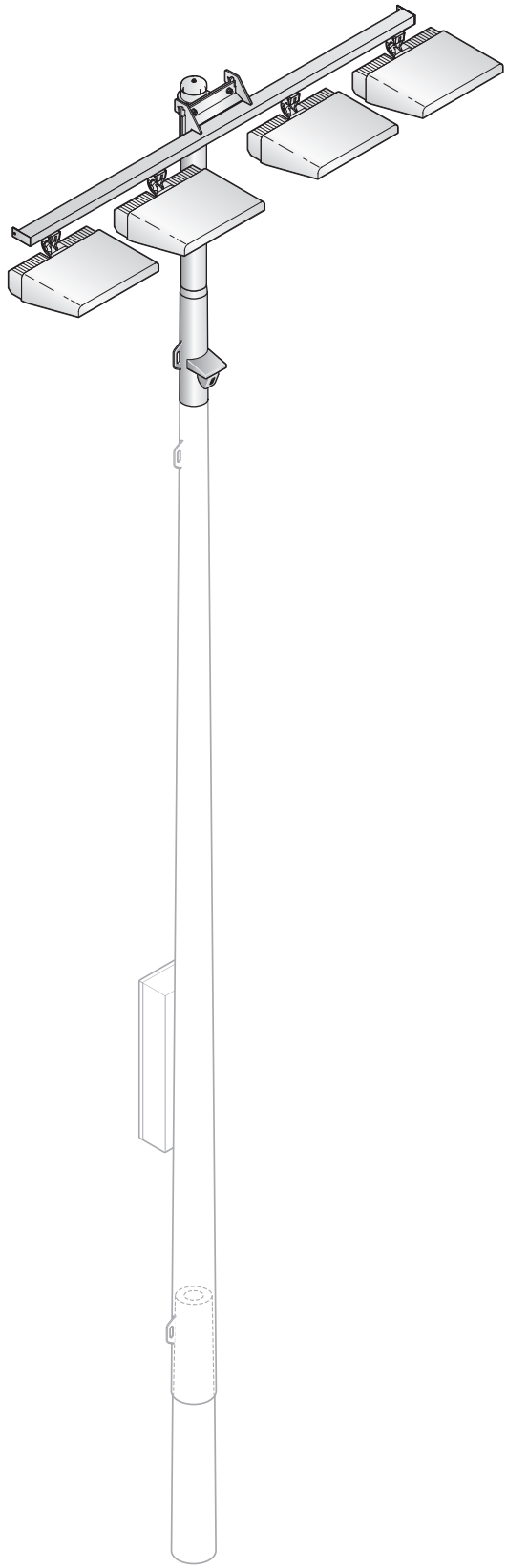
Quality Assurance Tests

- Connector to connector continuity test
- High potential dielectric withstand
- Machine applied termination crimp

TLC for LED® – Wire Harness



TLC for LED® – Poletop Luminaire Assembly, Bolt On



Overview

The factory-aimed poletop luminaire assembly is the upper section of the pole and slip-fits together with the galvanized steel pole. Crossarms are removed for shipping and assembled in the field.

Features

- Each luminaire is factory-built, tested, and ships as a unit
- Luminaires are factory-aimed to 0.3 degree of accuracy
- Luminaire mounts and connects to wire harness in a single step
- Slip-fit connection allows assembly with come-alongs
- All luminaires are factory-wired to a quick connect harness for easy installation
- Labels identify pole and luminaire location
- No exposed wiring or conduit
- Factory-set pole alignment beam allows easy field alignment
- Retaining hook crossarm attachment design

Technical Specifications

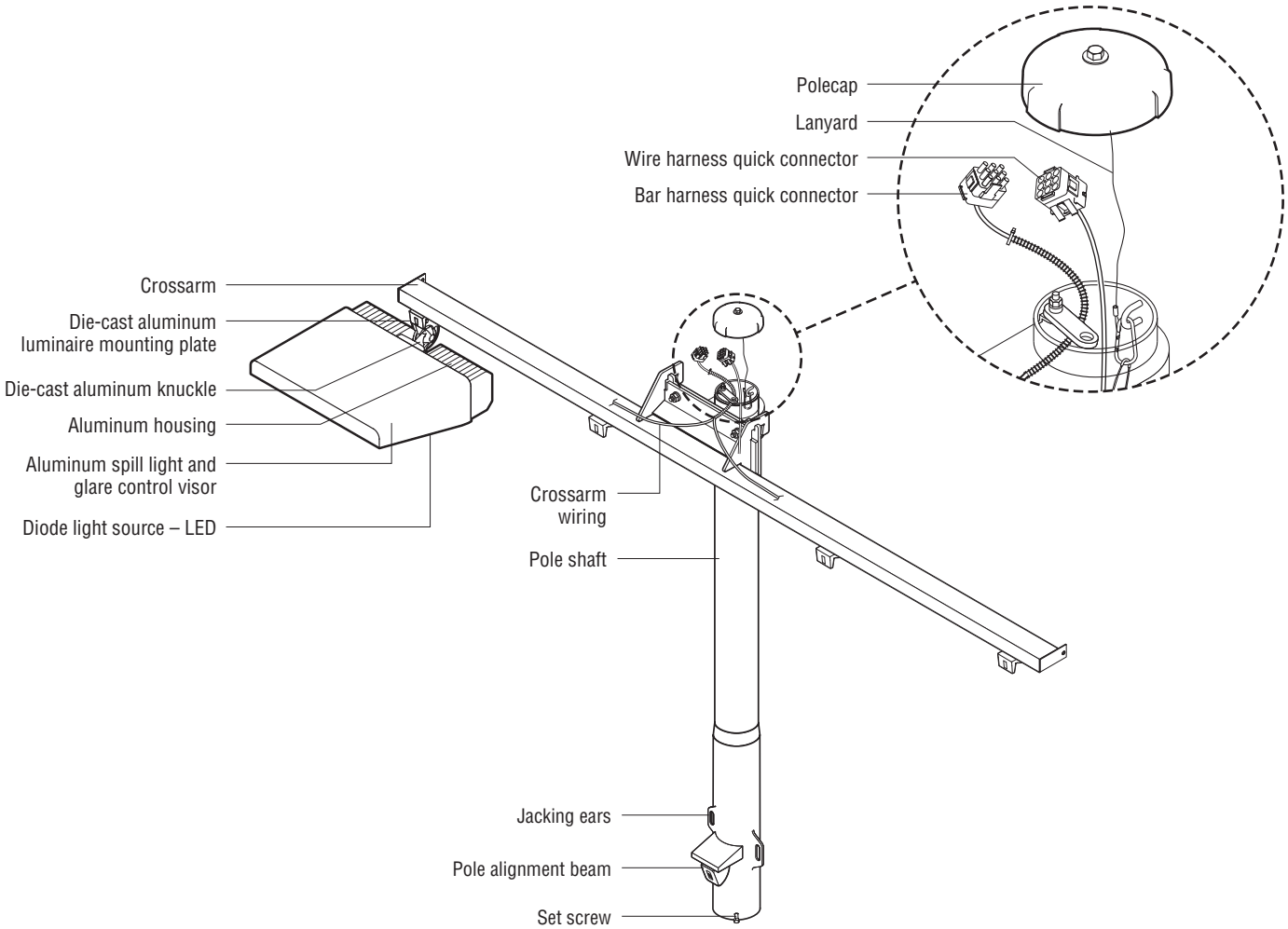
Construction

- Crossarms and pole shaft hot-dip galvanizing inside and outside after fabrication meets ASTM-A123 standard
- All aluminum components are powder-coated or anodized to mil-A-8625F
- Luminaire and knuckle are powder-coated aluminum
- All stainless steel fasteners are passivated and coated
- Crossarms are constructed of rectangular steel tubing
- Polecap is attached with stainless steel lanyard and securing bolt
- Structural-grade fasteners with DTI (Direct Tension Indicating) washers attach crossarms to poletop

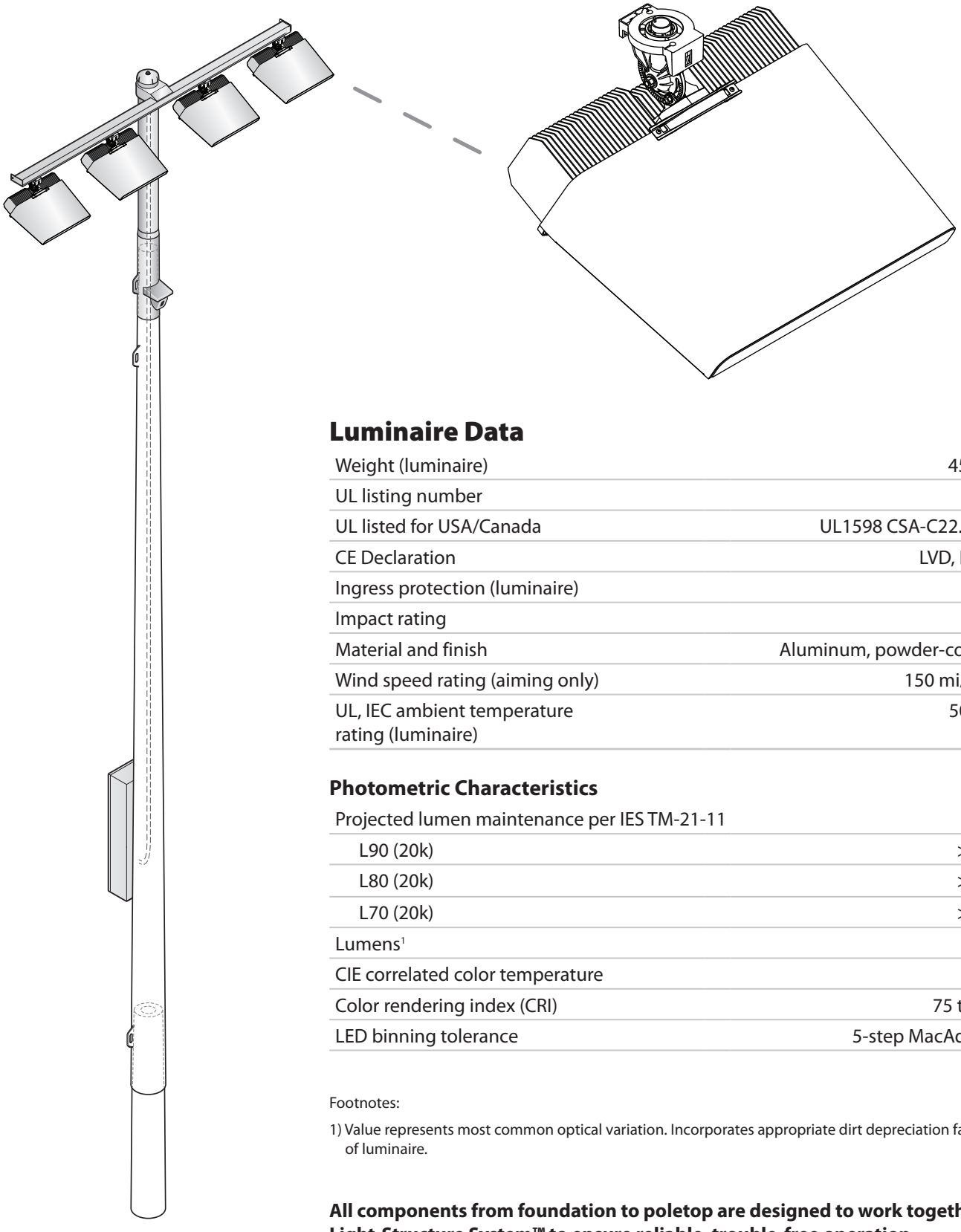
Quality Assurance Tests

- Galvanizing thickness
- High potential dielectric withstand
- Connector to connector continuity test
- Grounding continuity
- Luminaire functionality test

TLC for LED® – Poletop Luminaire Assembly, Bolt On



TLC-LED-1200 Luminaire and Driver



Luminaire Data

Weight (luminaire)	45 lb (20 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)	IP66
Impact rating	IK07
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 (20k)	>120,000 h
L80 (20k)	>120,000 h
L70 (20k)	>120,000 h
Lumens[1]	150,000
CIE correlated color temperature	5700 K
Color rendering index (CRI)	75 typ, 70 min
LED binning tolerance	5-step MacAdam Ellipse

Footnotes:

1) Value represents most common optical variation. Incorporates appropriate dirt depreciation factor for life of luminaire.

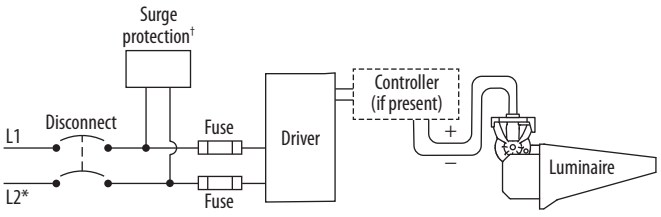
All components from foundation to poletop are designed to work together in Light-Structure System™ to ensure reliable, trouble-free operation.

TLC-LED-1200 Luminaire and Driver

Electrical Data

Rated wattage[1]	
Per driver	1170 W
Per luminaire	1170 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%
Flicker	<2%
Total harmonic distortion (THD) at full output	<20%

Typical Wiring



* If L2 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]	7.20 A	6.92 A	6.54 A	6.26 A	6.00 A	5.20 A	4.15 A	3.79 A	3.60 A	3.47 A	3.00 A

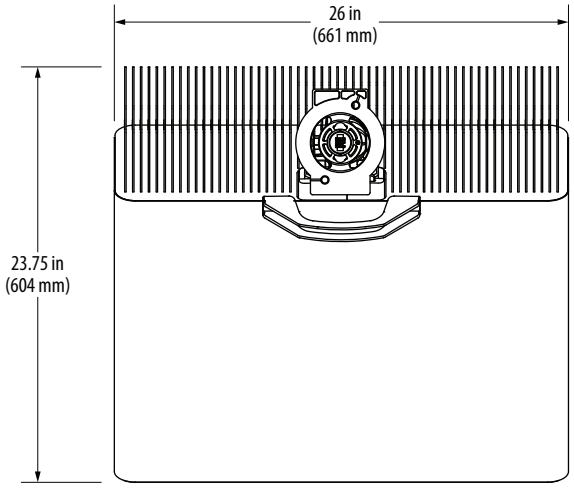
Footnotes:

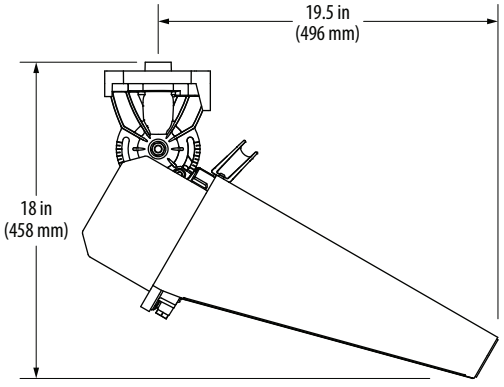
1) Rated wattage is the power consumption, including driver efficiency losses, at stabilized operation in 25°C ambient temperature environment.

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.





Safety: **UL Product Certification**

UL Product Certification for:

Musco Sports Lighting, LLC
211 2nd Ave W
PO Box 808
Oskaloosa, IA 52577
USA

UL Category	Covers	UL Number
High-Intensity Discharge Surface-Mounted Luminaires	• Green Generation™ luminaires and remote ballast assemblies • SportsCluster® and SportsCluster-2® luminaires and remote ballast assemblies • Light-Structure 2™ and Light-Structure System™ luminaires and remote ballast assemblies • 1000 W Light-Pak™ and Light-Pak indoor luminaires with Multi-Watt™ control system • 1000 W Show-Light™ and Show-Light Green™ luminaires with hooded light actuator system and remote ballast assemblies • 2000 W Mirtran™ luminaire • Stadium 2K Fixture™ 2000 W luminaire and Hot Restrike Green™ 2000 W hot restrike luminaire	E33316
Management Equipment, Energy	Lighting control systems for: • Control-Link® control and monitoring system • Control-Link retrofit control system	E139944
Industrial Control Panels	Control panels and enclosures for: • Control-Link® control and monitoring system • Control-Link retrofit control system • Lighting contactor cabinets • Multi-Watt™ control systems	E204954
Emergency Lighting and Power Equipment	• Auxiliary Lighting Interface Cabinet (ALIC)	E311491
Luminaire Fittings	Galvanized steel poles 12 ft (3.7 m) or less for: • Poles for Mirtran™ luminaire mounting • Rooftop poles • Special applications	E132445
Luminaire Pole in Excess of 12 ft (3.7 m)	Galvanized steel poles greater than 12 ft (3.7 m) for: • Light-Structure System™ luminaire mounting • Sportspole™ structure or mounting system and special applications	E325078

Safety: **UL Product Certification**

UL Category	Covers	UL Number
Devices, Scaffolding	Service platforms for: • Light-Structure System™ luminaires and remote ballast assemblies • SportsCluster® System luminaires and remote ballast assemblies	SA7004
Lightning Conductors, Air Terminals, and Fittings	• Light-Structure System™ pole structure concrete base	E337467
Light-Emitting-Diode Surface-Mounted Luminaires	• LED luminaires and driver assemblies • LED auxiliary luminaires	E338094

A copy of the UL Certificate of Compliance is available upon your request.

Manufacturer's Certification of Enhanced Corrosion Protection for Light-Structure System™ and SportsCluster® Lighting Systems

Environmental conditions in corrosive environments such as coastal regions may accelerate the corrosion rate of equipment. Careful selection of materials and coatings can provide protection in these corrosive environments.

Musco conducted over 150,000 hours of testing to study the effects of highly corrosive environments. Salt spray testing of aluminium components was conducted per ASTM B117 at an independent laboratory and Musco's in-house test chamber to evaluate various selections of alloys and coatings. All salt spray testing was conducted to minimum 3000 hours duration. Evaluation of various installation sites was also conducted to study actual field conditions.

The results of Musco's research and development allowed selection of materials and coatings that significantly outperform the control sample, representing typical materials in the lighting industry.

The following standard corrosion protection is provided on your equipment:

All exposed components are constructed of corrosion-resistant material and/or coated to protect against corrosion. All exposed carbon steel is hot-dip galvanised, meeting ASTM A123 and ISO/EN 1461. All exposed aluminium is powder coated with high-performance polyester or anodised. All exterior reflective inserts are anodised, coated with a clear, high-gloss, durable fluorocarbon, and protected from direct environmental exposure to prevent reflective degradation or corrosion. All exposed hardware and fasteners are stainless steel, passivated, and coated with an aluminium based thermosetting epoxy resin for protection against corrosion and stress corrosion cracking. Alternately, for hardware in non-stressed applications, an electroless nickel coating meeting ASTM B733 may be used. Pole strapping used to mount certain equipment to light poles is annealed stainless steel (grade 304) and passivated. Certain structural fasteners are carbon steel, galvanised meeting ASTM A153 and ISO/EN 1461 (for hot-dip galvanising), or ASTM B695 (for mechanical galvanising). This corrosion protection package only applies to equipment manufactured by Musco.

In addition, these enhanced corrosion protection features are provided to address the specific challenges of your corrosive environment:

Poletop Luminaire Crossarm Assembly is constructed of carbon steel and hot dip galvanised per ASTM A123. A proprietary galvanisation process ensures minimum 5 mil (125 µm) average thickness.

Exposed Die Cast Aluminium components are constructed of low copper aluminium alloy, type II anodised per MIL-STD-8625, and sealed with proprietary coating before application of high performance polyester powder coating.

Exposed Extruded Aluminium components are constructed of low copper aluminium alloy, type II anodised per MIL-STD-8625, and coated with high performance polyester powder coating.

Musco Sports Lighting, LLC

Tony Benson
Executive Director of Engineering

Palmetto Electric Inc.
1150 W MOODY BLVD STE 101
Bunnell, FL 32110-6941
EC0003177

QUOTE

Date	Quote#
3/3/2026	11617

CUSTOMER NAME & ADDRESS
City of Palm Coast Accounts Payable 160 Lake Avenue, Suite 214 Palm Coast, FL 32164

Ship To
Indian Trails Sports Complex Palm Coast

P.O. No.	Terms	Due Date	Job Address	Project/Job
Eric gebo		3/3/2026	ITMS(ITSC)	

Description	Qty	Quote total
Provide material and labor to perform the following: Install new 480v, 400 amp, 3 phase service for feed new MUSCO lighting for Fields 6, 7, and 8 at ITSC(ITMS). This to include the following: Electrical Permit Fees Conduit and wiring for new Musco lighting, including connection to Musco pole mount cabinets. Conduit and wiring for new service from FPL transformer near school chillers. Equipment rack located near storage shed at fields as per site mtg. Installation of Musco Control cabinet. Note: Concrete removal and repair as needed by CoPC FPL fees, if any,NOT included. Installation of Musco pole and lights by others. Dewatering, if required, NOT included. We also accept Visa & Mastercard	1	119,494.00

Quote Total $119,494.00

This quote is for completing the job as described above. It is based on our evaluation and does not include material price increases or additional labor and materials which may be required should unforseen problems or adverse weather conditions arise after the work has started. This Quoted price shall remain in effect for a period of 30 days from the date of acceptance. Any work required under this proposal after this date is not covered within the scope of this proposal. We accept Cash, Check, Money Order, Visa, MasterCard, Discover & American Express. Invoices are due within stated terms or late fees may be applied.

Signature _____

Web Site	E-mail	Fax #	Phone #
www.palmettoelectricinc.com	mail@palmettoelectricinc.com	386-437-3079	386-437-3068