

Little Miami Local School District

Request for Proposal

Title: Upgrade Stadium Pole Lighting and Add Lights to Practice Field

Due Date: February 19, 2026



1.0 Introduction and Background

Little Miami School District encompassed 98 square miles of Warren County that includes several villages and townships. The district current growth is also causing an increase in athletic participation. We are wanting to update our current stadium lighting to more cost effective and current system. We are also adding lighting to a practice field to allow extended use of this area.

1.1 Schedule

The following schedule is tentative and represents our intentions on the day this document was published. The higher priority of the district issues or activities could possibly affect the schedule. All vendors must follow this schedule. Unless otherwise noted, the deadline for each item is 3pm Eastern Standard Time.

Date	Time	Description of Activity
2/6/26		RFP posted to school web-site and news paper
2/13/26 *	13:00pm EST.	Pre-Proposal Meeting 3001 E. US 22&3 Morrow, Oh 45152
2/19/26 **	1:00pm EST.	RFP Submission deadline (RFP will be read at public opening)
2/25/26	5:00pm EST.	RFP Award and Board approval
6/1/26		Work can begin
7/18/26		Work Completion Date

*At the Pre-Proposal meeting we will meet at the High School near the football stadium.

If we are rained out on 2/13 the meeting will be rescheduled for 2/17 at the same time.

** Public Reading of Bids will take place at Little Miami Central Office 95 East US 22 & 3 Maineville, Oh 45039

1.2 RFP Attachments

- A. Attachment A – Reference Sheet
- B. Attachment B – RFP Question and Answer Sheet
- C. Attachment C – Non-Delinquency Form
- D. Attachment D – Non-Collusion Form
- E. Attachment E. – Arial view of area and current stadium lights paperwork

1.3 RFP Addenda

In the event that LMSD makes modifications, clarification, or additions to the Request for Proposal ("RFP"), information will be made available and posted to the LMSD website.

1.4 Proposal Acceptance

LMSD reserves the right to accept or reject any or all proposals, or any part thereof, and to waive any formalities.

- A. LMSD reserves the right not to accept the lowest priced proposal. Proposal that do not comply with the requirements stated with the RFP or which are submitted after the deadline are subject to disqualification.
- B. LMSD reserves the right to request additional information from vendors after the RFP deadline, should such action be in the best interest of LMSD.
- C. Following the deadline for RFP submittals: LMSD, its Board, its employees, its agents, its representatives and its attorneys reserve the right to have further discussion related to price and services provided with any prospective vendor during the review process. LMSD, its Board, employees, agents, representatives, and attorneys reserve the right to conduct these discussions with one or more respondent in order to arrive at a final selection.
- D. All proposals and all supporting documentation submitted with the proposal shall become the property of LMSD and will not be returned.
- E. All proposals and all supporting proposal documents become public information after award or rejection of all proposals and are available for inspection by the public.
- F. Responses to this RFP may be incorporated into the resulting contract at the discretion of LMSD.
- G. The respondent expressly understands that any data stored on any computer system owned by LMSD shall remain the sole and exclusive property of LMSD.
- H. Expenses incurred by the vendor in developing a response to this RFP are entirely the responsibility of the vendor and may not be charged to LMSD. Respondent shall make no public statement, explicitly or implicitly, indicating a vendor or potential vendor relationship with LMSD unless agreed upon by LMSD.
- I. This RFP may be awarded to a single vendor or multiple vendors in order to meet the service requirements of this RFP.

1.5 Proposal Evaluation

LMSD will consider the following criteria in evaluating proposals for awarding of the project:

Weight Factor	Evaluation Criteria
50%	Price (Project Cost)
20%	Project Schedule
10%	Ability to capture design and quality of design work
10%	Successful experience with similar projects
10%	Previous experience with LMSD

1.6 RFP Responses

- A. Electronic submittals should be combined into one PDF file named with the project number listed on the RFP and your company's name. Use the "print" feature of Adobe Acrobat or similar software for creating a PDF rather than using a scanner. If possible, reduce the file size of the PDF. In Acrobat, go to Advanced, then PDF Optimizer.
- B. Please no CD's or DVD's
- C. Paper copies of the RFP are to be stapled only. Do not use special bindings or coverings of any type. Cover letters are not necessary and facsimiles are not accepted.
- D. All response to the RFP is to be hand delivered, mailed or emailed to the following address prior to the submittal deadline:

David Florea/Maintenance Director

5819 Morrow – Rossburg Road

Morrow, Oh 45152

dflorea@lmsdoh.org

E. Unnecessarily elaborate responses that do not adequately address the RFP and not desired. Elaborate brochures and not desired. Reproduced copies of standard manuals may not be substituted for the specific response requested. Emphasis should be on completeness and clarity of the proposal. Failure to comply with the format guidelines may be considered indicative of the respondent's unwillingness to support customer needs and result in them being omitted from the evaluation process.

2.0 Statement of Work

2.1 Background

A. The primary objective of this Request for Proposal (RFP) is to describe the specifications, requirements, options and conditions for asphalt repairs. LMSD is looking for the best combination of quality, scheduling and cost optimization.

2.2 Project Overview

- A. The project shall consist of the following; this list is not all-inclusive
- a. Obtain all require permits from the county, township, and any other agency having authority.
 - b. Obtain/Complete a light study as required by township zoning.
 - c. Using existing light poles in the stadium replace existing light fixtures with LED fixtures that will provide at least equal to or greater lighting.
 - d. We are interested in a lighting system that has an app to turn lights off and on remotely (please list separately in RFP). Please add additional options for a point to turn lights on and off in case the app is not selected or an option.
 - e. Based on the light study and in compliance with permitting add no more than 4 light poles with fixtures on the current practice field
 - f. The new practice lights will also need to be LED.
 - g. We are interested in a lighting system that has an app to turn lights off and on remotely (please list separately in RFP) Please add additional options for a point to turn lights on and off in case the app is not selected or an option.
 - h. There is existing power connection out near the practice field they may or may not be used for the new lights, at the very least there will be a pull point. (this inground box will be open for the pre-bid meeting.)

2.3 Scope

- A. The proposal shall include all labor, material, installation, equipment, and permits to complete the project.
- B. The winning bidder shall advise and coordinate all work with the Maintenance Supervisor. The bidder shall furnish a schedule to the LMSD Maintenance Supervisor at the Pre-Construction meeting. Any schedule changes will be communicated to the Maintenance Supervisor by text, email or verbally.

2.4 Material and Specifications

- A. All material shall be new and all workmanship and materials shall be of premium quality. No substitutions without written approval from the LMSD Maintenance Supervisor.

2.5 Site Considerations

- A. Please be aware and plan for some of the following at the site.
- a. Traffic
 - b. Overhead power lines and underground utilities
 - c. Landscaping and Grounds must be return to same condition as before work
 - d. Playgrounds in areas
 - e. Public foot traffic

2.6 Place of work

- A. The project will take place at Little Miami High School 3001 East US 22 & 3 Morrow, Oh 45152.

2.7 Project Completion Date

- A. 7/18/26

3.0 General Information and Instruction

3.1 Preparation of Services

- A. The Little Miami School District is a Tax-Exempt organization. As such material items as well as charges for service must be void of Federal and State Taxes. An exemption certificate will be signed where applicable upon request.

3.2 RFP Coordinator

- A. From the date of receipt of this RFP by each vendor until completed selection process, the only communication shall be between the vendor and the District RFP Coordination Office (Maintenance Department).
- B. The RFP Coordinator is the sole source of contact regarding all communications regarding this RFP. Vendors are advised to use the RFP Coordinators email address for all communications. All questions need to be received by 2/13/26 and will be answered to all parties by 2/14/26.
 - a. RFP Coordinator – David Florea
 - b. Email Address – dflorea@lmsdoh.org

3.3 Payment Term and Conditions

- A. If selected to provide services listed herein, all invoices must be sent to Little Miami Schools (Attn: David Florea) at the completion of all work and must reference the LMSD purchase order number issued for this project.
- B. Payment will not be made without proper Purchase Order number and until the entire order is received, reconciled and invoiced.

3.4 Cost to Propose

- A. The Little Miami School District is not liable for any cost incurred by the vendor in preparation of a quote submitted in response to this RFP, in conduct of a presentation or any other activities related to responding to this RFP.

3.5 Collusion

- A. The Vendor, by affixing his/her signature to the service, agrees to the following: Vendor Certifies that his/her service is made without previous understanding, agreement, or connection with any person, firm or corporation making a service for the same items and is in all respects fair, without outside control, collusion, fraud, or otherwise illegal action.

3.6 Governing Law

- A. Contract(s) resulting from this RFP are subject to, and the vendor must comply with, all Federal, State of Ohio, and Local Laws and Statutes.

3.7 Termination for Cause

- A. Contract(s) resulting from this RFP may be cancelled for mal-performance, non-performance or failure on the part of the vendor to comply with the terms and conditions detailed herein. In the event such action is necessitated, the contract(s) shall be null and void upon receipt of written notification from the RFP Coordinator.

3.8 District Policies and Rules

- A. The following District Policies and Rules must be followed by all employees, sub-contractors, and guest of the vendor while on district grounds.
- a. All District Grounds are Tobacco, Alcohol, and Drug Free
 - b. Parking of personal vehicles is only permitted in designated areas
 - c. All person must have a clear criminal history free from the following
 - i. Sex Offenses/Registered Sex Offender
 - ii. Crimes of Violence
 - iii. Drug Related Charges
 - iv. Felony Convictions
 - d. Properly dressed at all times
 - e. No Littering
 - f. Use of common sense when students and staff are in the area or close by.

4.0 Required Information

- A. Company Letter head stating person signing, representing, and/or making proposal has the authority to do so on behalf of the vendor.
- B. Identified single contact with contact information, email, landline and cellphone numbers.
- C. Copies of liability insurance and worker compensation
- D. Signed copy of RFP (see below)
- E. Signed and Notarized Non-Collusive Affidavit (attached)
- F. Signed and Notarized Non – Delinquency (attached)
- G. At Least 3 references of work completed, at least one being a K-12 School District
- H. A Bid Guaranty

5.0 Signature and Vendor Information

Vendor Name	
Representatives Name	
Representative signature	
Date Signed	
Email Address	

Work References

Company/School District Name: _____

Point of Contact Name: _____ Title: _____

Point of Contact Phone Number: _____ Year Work Done: _____

Description of work completed:

Company/School District Name: _____

Point of Contact Name: _____ Title: _____

Point of Contact Phone Number: _____ Year Work Done: _____

Description of work completed:

Company/School District Name: _____

Point of Contact Name: _____ Title: _____

Point of Contact Phone Number: _____ Year Work Done: _____

Description of work completed:

Additional references can be added on the back of this sheet or attached additional sheets.

Little Miami School District RFP Question Submittal Form

Vendor Name: _____ Date: _____

Representative Name: _____

Question 1:

Answer 1:

Question 2:

Answer 2:

Please send to David Florea at via one of the following methods:

Email: dflorea@lmsdoh.org

Fax: (513) 899-4004

Physical Address: 5819 Morrow Rossburg Road Morrow, Oh 45152

AFFIDAVIT OF CONTRACTOR OF NON-DELIQUENCY OF PERSONAL
PROPERTY TAXES

(O.R.C. 5719.042)

Section 5719.042 of the Ohio Revised Code requires that all contracts let by competitive bid cause to be attached, prior to awarding of a contract, a statement affirmed under oath that the person/company with whom the contract is to be made was not charged with any delinquent personal property tax in the county in which the taxing district has territory.

Check one of the following statements:

_____ I/We do not owe any Personal Property Taxes in Warren or Clermont County.

_____ I/We do owe Personal Property Taxes in Warren or Clermont County in the total amount
\$ _____

This statement is freely and voluntarily given with full knowledge of the facts, on this

_____ day of _____, 20____

AFFIANT: _____

SIGNATURE: _____

(name printed) _____

TITLE: _____

Sworn and subscribed to before me this _____ day of _____ 20____

SIGNATURE OF NOTARY PUBLIC: _____

My Commission expires _____

NON-COLLUSION AFFIDAVIT

STATE OF OHIO

COUNTY OF _____

} ss.:

_____ being first duly sworn, deposes and says:
(Type or print name)

that he or she is the _____ of
(Type or print title)

_____, who submits herewith
(Type or print name of company/firm)

the forgoing proposals or bids; that such bids are genuine and not collusive or sham; such bidder has not colluded, conspired, connived, or agreed, directly or indirectly, with any bidder or person, to put in a sham bid, or that such other person shall refrain from bidding and has not in any manner, directly or indirectly sought by agreement or collusion, or communication or conference, with any person, to fix the bid price of affiant or any other bidder, or to fix any overhead, profit or cost element of said bid price, or of that of any other bidder or to secure any advantage against the State of Ohio or any person or persons interested in the proposed lease; and that all statements contained in said proposal are true; and further, that such bidder has not, directly or indirectly submitted this bid, or the contents thereof, or divulged information or data relative thereto to any association or to any member or agent thereof,

Signed: _____

Name: _____

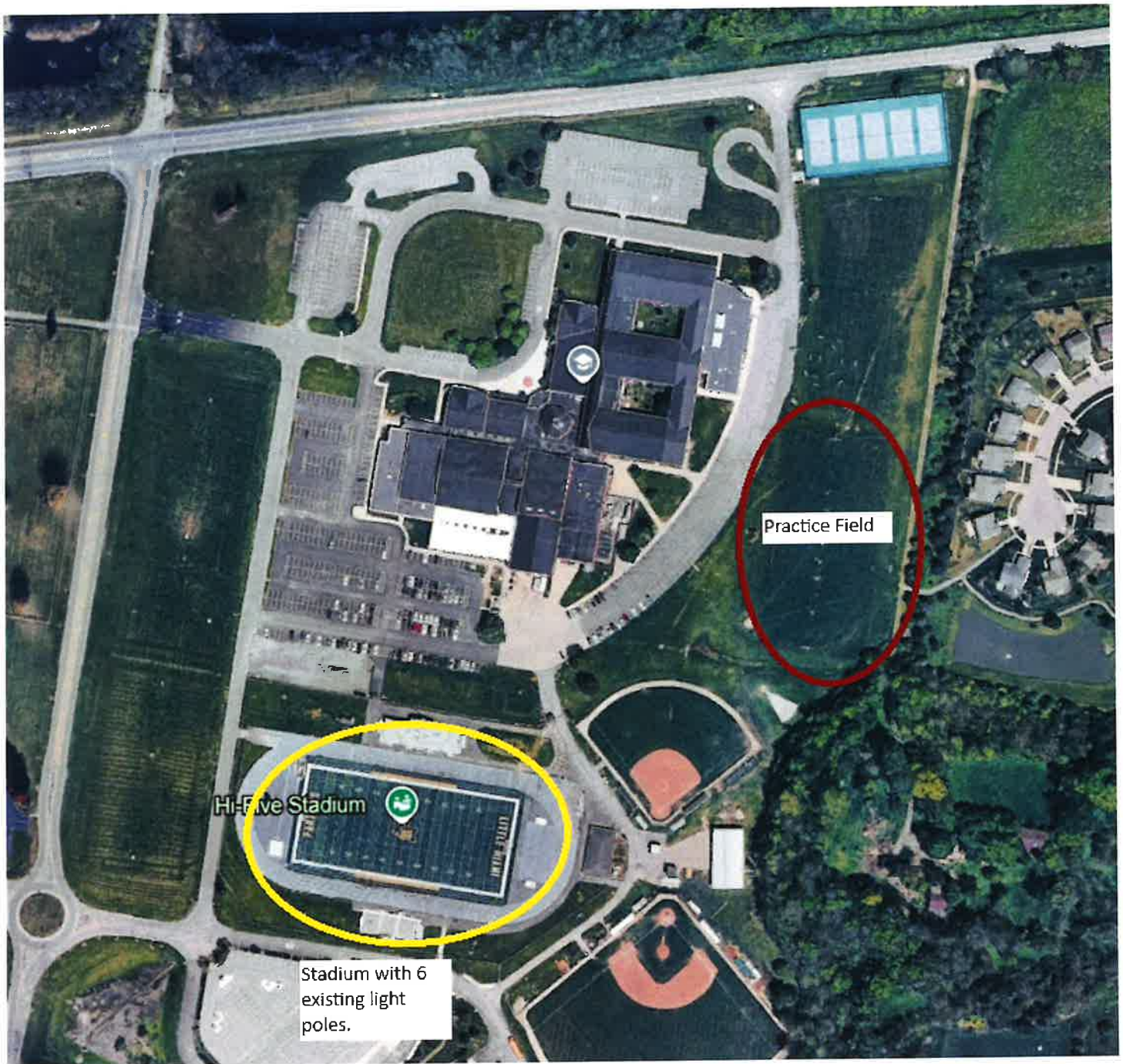
Title: _____

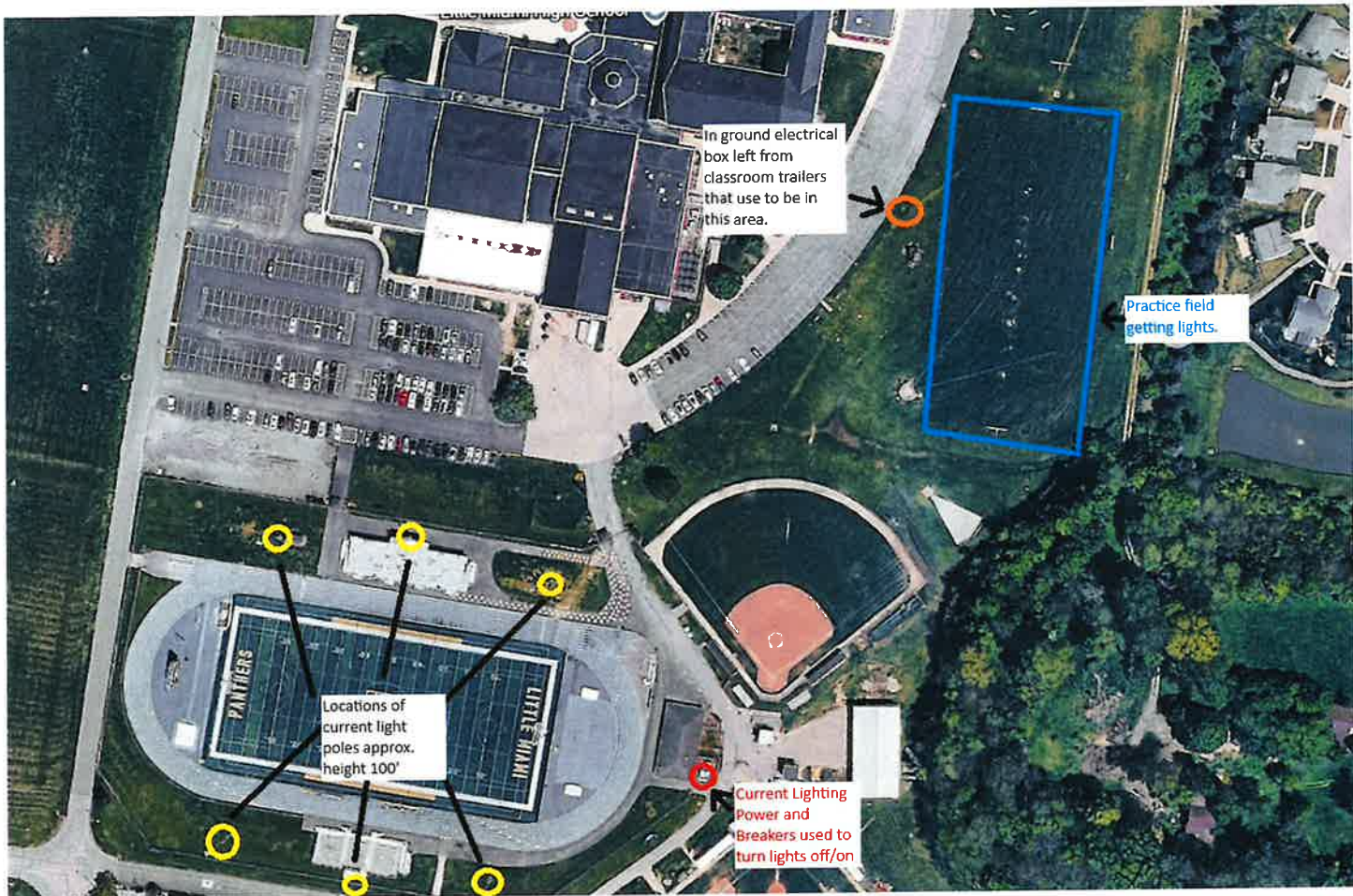
Subscribed and sworn to (or affirmed) before me on this ____ day of _____,
20____, by _____, proved to me on the basis of satisfactory evidence
to be the person(s) who appeared before me.

Notary Public

(Notarial Seal)

WARNING: Bids will not be considered unless the affidavit hereon is fully executed including the affidavit of the notary and the notarial seal.







UNDERWRITERS LABORATORIES INC.
NORTHBROOK, IL · MELVILLE, NY · SANTA CLARA, CA · TAMPA, FL

FILE COPY

an independent, not-for-profit organization testing for public safety

File E33316
Project 83NK7067

April 4, 1983

REPORT

on

HIGH INTENSITY DISCHARGE FIXTURES

Muscatine Lighting Mfg. Co., Inc.
Muscatine, IA

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named company to reproduce this Report provided it is
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D E S C R I P T I O N

PRODUCT COVERED:

* High intensity discharge lamp post mounted fixtures. These
*fixtures may be used with this manufacturer's Listed poles, see
*ILL. 6.

GENERAL CONSTRUCTION:

This product shall comply with Sec. Gen. and with the
description on the following pages.

LB/JJM:irp
NKDLS

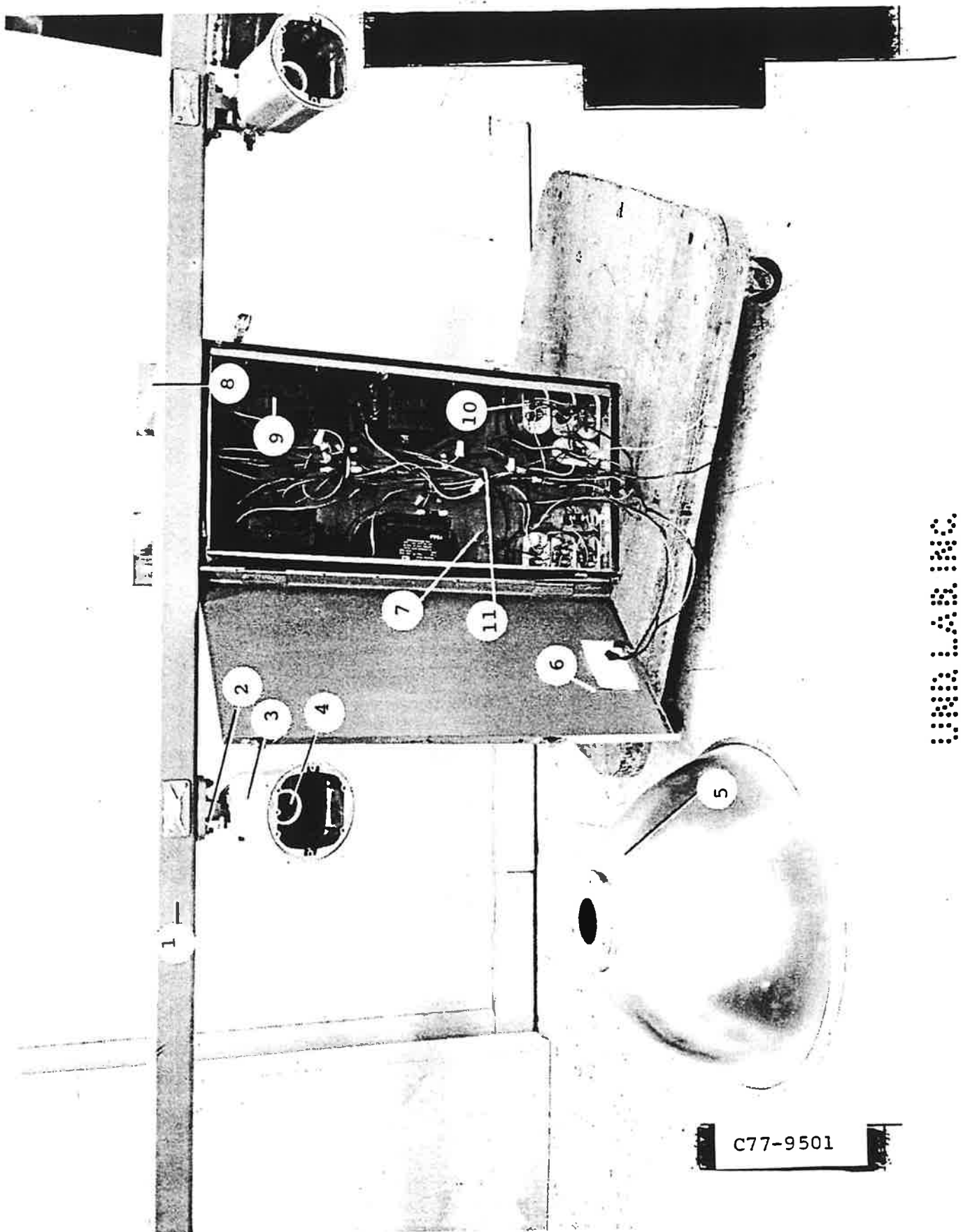
CONSTRUCTION DETAILS:1500 W HIGH INTENSITY DISCHARGE SPORTS
CLUSTER FIXTURE - FIG. 1 (C77-9501)

General - The general design, shape and arrangement shall be as illustrated, except where variations are specifically described. All dimensions are nominal unless otherwise specified.

1. Wireway - Galvanized steel, 3/32 in. thick, may vary in length, minimum 2 in. square (or rectangular), welded to ballast compartment. May be provided with 2-1/2 by 1-1/8 in. openings located above lampholder mounting for wire inspection. Openings are covered with 1/8 in. thick cast aluminum cover provided with gasket and adhesive No. 1 in accordance with Sec. Gen. Cover secured to wireway by two screws.
- *
2. *Swivel Joint Bracket - One provided for each lampholder enclosure. Cast aluminum, secured into underside of wireway by two bolts and nut, spacing may vary from 26 to 33 in. from center to center and 13 to 24 in. from center to wall of ballast compartment. Wireway opening is oval shaped, 1-1/2 in. diameter, with a 1/2 in. high lip around the edge.
3. *Lampholder Enclosure - One provided for each lampholder. Provided with integral swivel secured to swivel joint bracket with bolts, both threads are covered with silicone rubber tubing to prevent damage of wires. O-ring gasket No. 4 in accordance with Sec. Gen. provided sandwiched between swivel parts. Gasket measures 2.2 in. ID overall with cross section measuring at least 1/4 by 1/8 in. Gasket No. 2 or 3 provided in accordance with Sec. Gen. sandwiched between lampholder enclosure and swivel, measuring 1/16 in. thick, 3-1/2 by 4 in. with 7/8 in. ID opening. Lampholder bracket nominally 4-1/4 in. square, 6-1/4 in. long. Lampholder bracket provided with integral bases spacing lampholder 1/4 in. from inside wall.
4. Lampholder - Listed, mogul base, rated 600 V minimum, porcelain body mounted to lampholder bracket with two screws, a total maximum six lampholders may be provided. When used with high pressure sodium lamp, the lampholder shall have at least a 5 kV pulse rating.

Alternate - Mercury vapor and metal halide fixtures may have Recognized Component lampholder manufactured by Leviton, Cat. No. 8738 (ONU22). Spacings to live assembly nuts and screws on lampholder base from dead metal parts shall not be less than 1/2 in.

AND REPORT



0001000000

Alternate - Mercury vapor and metal halide fixtures may have Recognized Component lampholder manufactured by GTE Sylvania, Cat. No. 11-AL36.9 (ONU22). Spacings to live assembly nuts and screws on lampholder base from dead metal parts shall be not less than 1/2 in. Lampholder leads are provided with fiberglass sleeves suitable for at least 150°C for a minimum of 12 in. Conductor size shall be suitable for ballast used.

5. *Reflector Assembly - One provided for each lampholder enclosure. Aluminum, 1/32 in. thick overall, 22-1/2 in. diameter, 12-1/2 in. deep. Reflector secured to lampholder bracket with three screws. Diffusers formed of 1/8 in. thick tempered glass, 22-1/2 in. diameter. Edge of diffuser completely sandwiched between any 1/16 in. thick silicone rubber gasket. Silicone rubber gasket and glass edge are overlapped by metal frame by 1/4 in. all around. Diffuser secured to reflector with four metal latches and chain support. See Sec. Gen., Page 14.
6. Ballast Compartment Cover - Galvanized steel, 1/16 in., nominally 28-1/4 by 14-1/4 in. wide, secured to ballast compartment by at least two 2 in. long hinges. Provided with two latches for locking on opposite side. May be alternately secured by at least four machine screws or over center latches (at least two per side) in lieu of hinges and latches.
7. Ballast Compartment - Galvanized steel, 1/16 in. thick, may vary in length, 8 in. deep by 14-1/4 in. wide, provided with 3/8 in. wide, minimum 1/8 in. thick gasket and adhesive No. 1 or 5 in accordance with Sec. Gen., all around cover edge. Provided with 2 in. diameter opening at bottom for 1-1/2 in. trade size conduit connection.
8. Mounting Means - Two pairs of mounting brackets welded to top and bottom of back of ballast compartment for mounting spaces ballast compartment minimum 4-1/2 in. from end of bracket and mounting surface.

- *9. Ballast - Recognized Component open core and coil ballast (FLCR2), rated in accordance with ballast Table 1, or the ballast may be identified with the following: 1029A through G with a Class H insulation system for MH or MV lamps or 1029A through C with a Class H insulation system for an HPS lamp. The letter represents a coil rise temperature where A is the least value and F is the maximum value. For example, if the individual Report specifies ballasts rated 1029C, any Recognized Ballasts coded 1029A, 1029B, and 1029C may be used interchangeably, for the particular lamp type (HPS versus MV and MH). Secured inside ballast compartment by plated steel brackets and screws. Wired in accordance with the diagram or instructions provided on or with the ballast. Spacings maintained in accordance with the Standard between the outer wrap over coil windings and dead-metal parts. Number of ballasts vary with length of ballast enclosure, a maximum of six ballasts may be provided. Ballast mounted 3 in. apart and 2 in. from top of enclosure. Ballast mounted to enclosure with 1/8 in. thick metal bracket. Ballasts may be mounted as shown in ILLS. 1 through 4 with a pair of 3/16 in. steel rods and clamp and bracket assembly.
10. Capacitor - Stacked as shown, secured by steel straps, prevented from shifting with 3/16 in. square steel bars welded to wall of compartment. Rated as indicated in ballast table. Capacitor voltage ratings are minimum values.
11. Internal Wiring - (Not shown) - Neatly routed away from ballast cores, rated for at least 90°C, suitable for the voltage involved. Provided with metal wire guide for wire routing. All splices and connection are made with Listed wire connectors suitable for 90°C, also number and wire size involved.
12. Fuseholder - (Optional, not shown) - Recognized Component fuseholder or fuseholders, manufactured by Bussmann, Cat. Nos. 4161 and 4396, rated 30 A, 250 V for ballasts rated 250 V or less and Cat. No. 15027, rated 12 A, 300 V and Cat. No. BM 6032SQ, rated 30 A, 600 V. Spacings to exposed dead-metal parts and live-metal parts of opposite polarity shall be maintained at 3/8 in. through air or over surface. Fuseholders shall be wired ungrounded primary connection of ballasts. Fuseholders secured by screws to back of enclosure or to slotted bracket secured by screws near front of enclosure.

Alternate - Recognized Component fuseholder (IZLT2), Cat. No. 3743 with bracket No. 3742, by Bussmann Mfg. Co., rated 600 V.

13. Circuit Breaker - (Not shown or itemized) - Listed circuit breaker, provided for use with or without fuse and fuseholder (Item 12). Rated in accordance with circuit requirements.

Alternate Connectors - (Not shown or itemized) - Optional. Recognized Component receptacles (RTRT2), manufactured by Amp, Inc. "Mate-N-Lok" Series or Recognized Component fuseless attachment plugs (AXUT2), manufactured by SPC Technology Cat. Nos. ACH-030-BLK, -RED, -WHT, -GRN. Secured away from ballasts (Item 9).

14. Marking - (Not shown) - In accordance with Sec. Gen. with manufacturer's name, electrical ratings, type of lamps as indicated in the ballast table, and "For Supply Connections, Use Wire Suitable For 90°C". May be marked "Suitable For Wet Locations" in Form D-1, if additionally marked "For Down Lighting Only" in Form A-2.

* General - This fixture is identical with that shown in Fig. 1, except as noted below. The sportscluster mounts to the top of a pole and ballast compartment (when provided) mounts to the bottom of the pole.

1. Lampholder - Same as Fig. 1, Item 4 except up to nine provided.
- 2.* Ballast Compartment - Fig. 1, Items 6, 7 and 8 are optional. Up to three provided. When the ballast compartment is provided, each compartment shall house maximum six ballasts.
3. Ballasts - Same as Fig. 1, Item 9, except up to nine provided, all remote mounted.
4. Capacitors - Same as Fig. 1, Item 10, except one provided per ballast, all remote mounted.
5. Fuseholder/Circuit Breaker - Fig. 1, Items 12 and 13 may be provided for remote mounting.
6. Marking - Includes manufacturer's name, relamping information, and markings for connection to remote ballasts with 600 V wire. Also may be marked "Suitable For Wet Locations."

BALLAST TABLE

* Manufacturer	Cat. No.†	Lamp		Input		Cap	
		W	Type	V	A	uF	V
Sola	79-12-625	1000	H36 M47	277	4.0	24	450
Sola	79-15-625	1000	H36 M47	208	5.3	24	450.
Sola	79-21-625	1000	H36 M47	120	9.2	24	450
Sola	79-23-625	1000	H36	480	2.3	24	450.
Sola	79-27-625		M47	240	4.6	24	450
Sola	79-40-625	1000	H36	120	9.2	24	450
			M47	208	5.3		
				240	4.6		
				277	4.0		
Sola	78-12-15404	1000	H36 M47	120	9.2	24	450
Sola	78-14-15404	1000	H36 M47	240	4.6	24	450.
Sola	78-17-15404	1000	H36 M47	277	4.10	24	450.
Sola	78-31-15404	1000	H36 M47	208	5.3	24	450
Sola	78-18-15404	1000	H36 M47	480	2.3	24	450.
Sola	78-40-15404	1000	H36 M47	120	9.2	24	450.
				208	5.3		
				240	4.6		
				277	4.0		
Sola	78-12-15410	1000	H36 M47	120	9.50	24	470
Sola	78-14-15410	1000	H36 M47	240	4.75	24	470
Sola	78-17-15410	1000	H36 M47	277	4.10	24	470
Sola	78-18-15410	1000	H36 M47	480	2.35	24	470
Sola	78-24-15410	1000	H36	480E	2.35	24	470
Sola	78-31-15410		M47	208	5.45	24	470
Sola	78-40-15410	1000	H36	120	9.5	24	470
			M47	208	5.4		
				240	4.8		
				277	4.1		
Jefferson	845-1798	1000	H36	480	2.3	24	480

*† - May be preceded with No. 78 or 79 prefix for Sola ballasts.

File E33316

Vol. 1 Sec. 7
and Report

*Page 6A

Issued: 4-4-83
Revised: 3-14-91

Manufacturer	Cat. No.	Lamp		Fixture Marked Ratings		
		W	Type +	V	A	Hz
Universal	1130-57	1000	M47 H36	480	2.3	60
Universal	1130-97	1000	M47	120	9.2	60
Universal	1130-97	1000	H36	200	5.3	60
Universal	1130-97	1000		240	4.6	60
Universal	1130-97	1000		277	4.0	60
Advance	71A6572/92	1000	M47	120	9.0	60
Advance	71A6572/92	1000	H36	208	5.2	60
Advance	71A6572/92	1000		240	4.5	60
Advance	71A6572/92	1000		277	3.9	60
Advance	71A6542	1000	M47 H36	480	2.25	60
Advance	71A6532	1000	M47 H36	277	3.9	60
Advance	71A6522	1000	M47 H36	240	4.5	60
Advance	71A6512	1000	M47 H36	208	5.2	60
Advance	71A6502	1000	M47 H36	120	9	60
Advance	71A8743	1000	S52	120	10.0	60
Advance	71A8743	1000		208	5.8	60
Advance	71A8743	1000		240	5.0	60
Advance	71A8743	1000		277	4.3	60
Advance	71A8773	1000	S52	120	9.2	60
Advance	71A8773	1000		208	5.3	60
Advance	71A8773	1000		240	4.6	60
Advance	71A8773	1000		277	4.0	60

+ - ANSI lamp designations.

++ - Indicates ballast fixture was tested with or ballast
with the highest bench temperature rise.

BALLAST TABLE

Manufacturer	Cat. No. +	Lamp		Input		Cap	
		W	Type	V	A	uF	V
Sola	78-12-16402	1500	M48	120	13	32	525
Sola	78-14-16402	1500	M48	240	6.5	32	525
Sola	78-17-16402	1500	M48	277	5.6	32	525
Sola	78-18-16402 ++	1500	M48	480	3.25	32	525
Sola	78-22-16402	1500	M48	120	13	32	525
				240	6.5		
Sola	78-31-16402	1500	M48	208	7.5	32	525
Sola	78-40-16402	1500	M48	120	13	32	525
				208	7.5		
				240	6.5		
				277	5.6		
Sola	78-12-16410	1500	H36	120	14.3	32	525
			M48				
Sola	78-31-16410	1500	H36	208	8.11	32	525
			M48				
Sola	78-14-16410	1500	M48	240	7.10	32	525
Sola	78-17-16410	1500	H36	277	6.13	32	525
			M48				
Sola	78-18-16410	1500	H36	480	3.53	32	525
			M48				
Sola	78-18-16411	1500	H36	480	3.55	32	525
			M48				
* Sola	78-40-16410	1500	H36	120	12.7	32	525
*			M48	208	8.11		
*				240	7.10		
*				277	6.13		
				208	8.11	32	525
Sola	78-41-16410	1500	H36				
			M48				
Sola	78-46-16410	1500	H36	208	8.11	32	525
			M48	240	7.1		
				277	6.13		
Sola	78-46-16411	1500	H36	208	8.11	32	525
			M48	240	7.1		
				277	6.13		
Sola	78-47-16410	1500	H36	240	7.1	32	525
			M48	277	6.13		

+ - May be preceded with No. 78 or 79 prefix for Sola ballasts.

++ - Ballast tested in fixture.

BALLAST LIST

<u>Manufacturer</u>	<u>Cat. No.</u>	<u>Lamp</u>		<u>Fixture Marked Ratings</u>		
		<u>W</u>	<u>Type +</u>	<u>V</u>	<u>A</u>	<u>Hz</u>
Advance	71A6772	1500	M48	120	13.5	60
		1000	H36	208	7.8	60
				240	6.75	60
				277	5.85	60
	++					
Advance	71A6742	1500	M48	480	3.4	60
		1000	H36			60
Advance	71A6732	1500	M48	277	5.85	60
		1000	H36			60
Advance	71A6722	1500	M48	240	6.75	60
		1000	H36			60
Advance	71A6712	1500	M48	208	7.8	60
		1000	H36			60
Advance	71A6702	1500	M48	120	13.5	60
		1000	H36			60

+ - ANSI lamp designations.

++ - Indicates ballast fixture was tested with or ballast
with the highest bench temperature rise.

MAXIMUM 1000 W, 40°C AMBIENT "SPORT
CLUSTER" FIXTURE

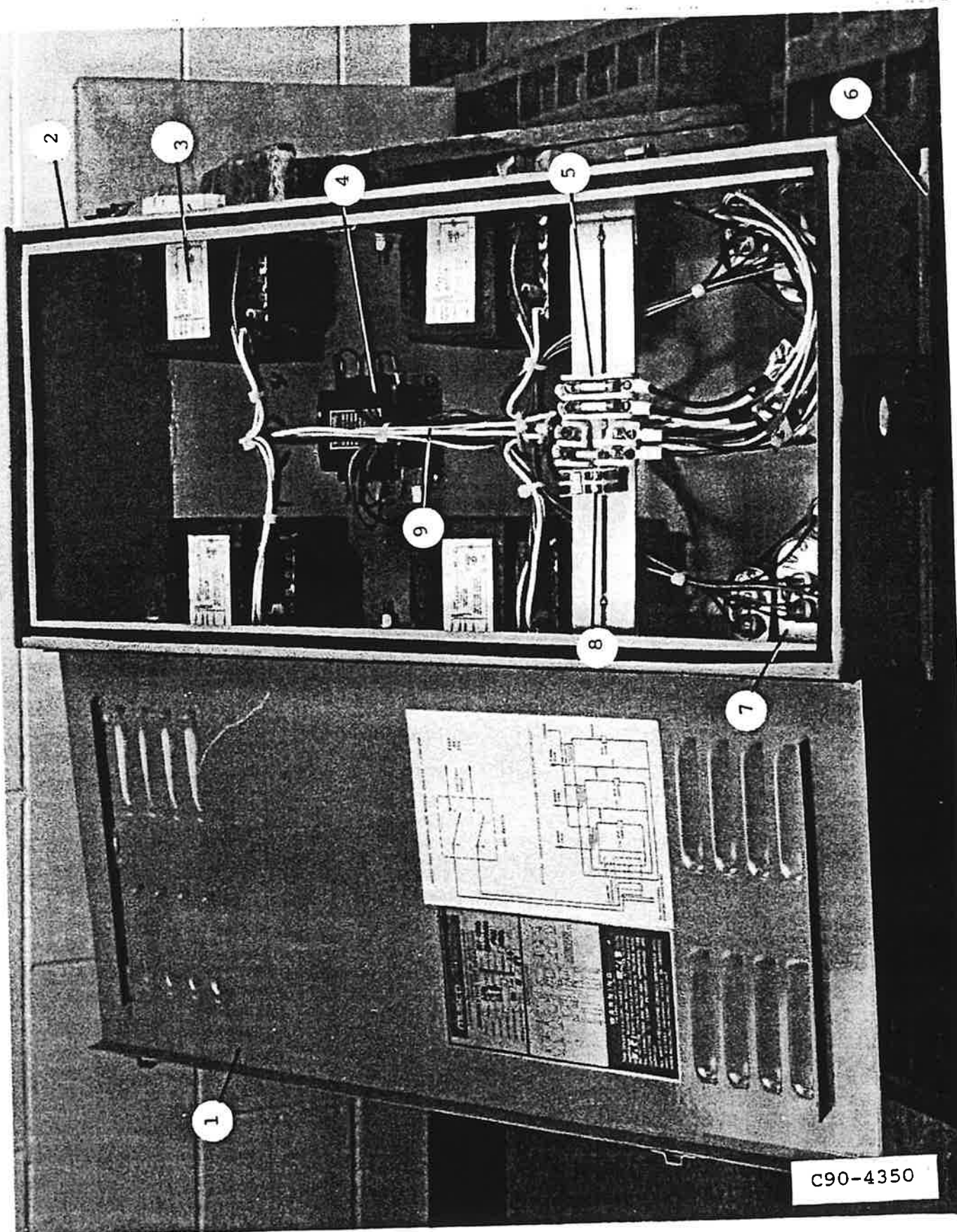
General - The general design, shape, and arrangement shall be as illustrated in Fig. 1, except where variations are specifically described.

1. Ballast - The ballast shall be as described in Item 9 and those in the "Ballast Table" for 1000 W lamps only.
2. Marking - In addition to the marking indicated in Item 12, also marked "Suitable For Max 40°C Ambient".

GFW/KWL:rmf

ALTERNATE BALLAST COMPARTMENT FOR "SPORTSCLUSTER" -
FIG. 2 (C90-4350)

1. Ballast Compartment Cover - Same as Fig. 1 Item 6.
2. Ballast Compartment - Same as Fig. 1, Item 7.
3. Ballast - Recognized Component (FLCR2) ballast, rated in
*accordance with the ballast table. Maximum of six ballasts
provided, wired in accordance with the ballast
manufacturer's wiring diagram and lead identification.
Ballasts are mounted as shown, minimum 3 in. apart by steel
rods and clamp assembly.
4. Contactor - Recognized Component (NLDX2) manufactured by
Potter and Brumfield, Cat. No. P30P series contacts rated
600 V ac, 40 A resistive. Secured to back of ballast
enclosure and spaced 1-3/4 in. minimum from any ballast.
5. Fuseholders - Listed, rated 15 A minimum. One provided per
ballast.
6. Disregard
7. Capacitors - Recognized Component (CYWT2) capacitors. One
set of two capacitors provided for each ballast. Rated
capacitance shall add up to capacitance required by the
ballast. Secured by a metal strap to bottom of ballast
compartment. Mechanically prevented from shifting.
Spacings in accordance with Sec. Gen. Spaced 3 in. minimum
from ballasts wired in accordance with ILL. 5.
8. Terminal Block - Recognized Component (XCFR2) terminal
block manufactured by Curtis Industries rated 50 A, 600 V.
Cat. No. SWTC which may be preceded by "2P" or "3P".
9. Internal Wiring and Connectors - Recognized Component,
*(AVLV2) AWM minimum number AWG, suitable for at least 90°C,
600 V. Connectors shall be Listed, suitable for the size,
type and numbers provided.
10. Marking - (Not shown or itemized) - Marked with
manufacturer's name, electrical ratings, and "For Supply
Connections, Use Wire Suitable For 90°C." May be marked
*"Suitable For Operation In Ambient Not Exceeding 40°C."



- REP/JF:FJH

PART 250-204

3/8-16 BOLT

PART 250-140

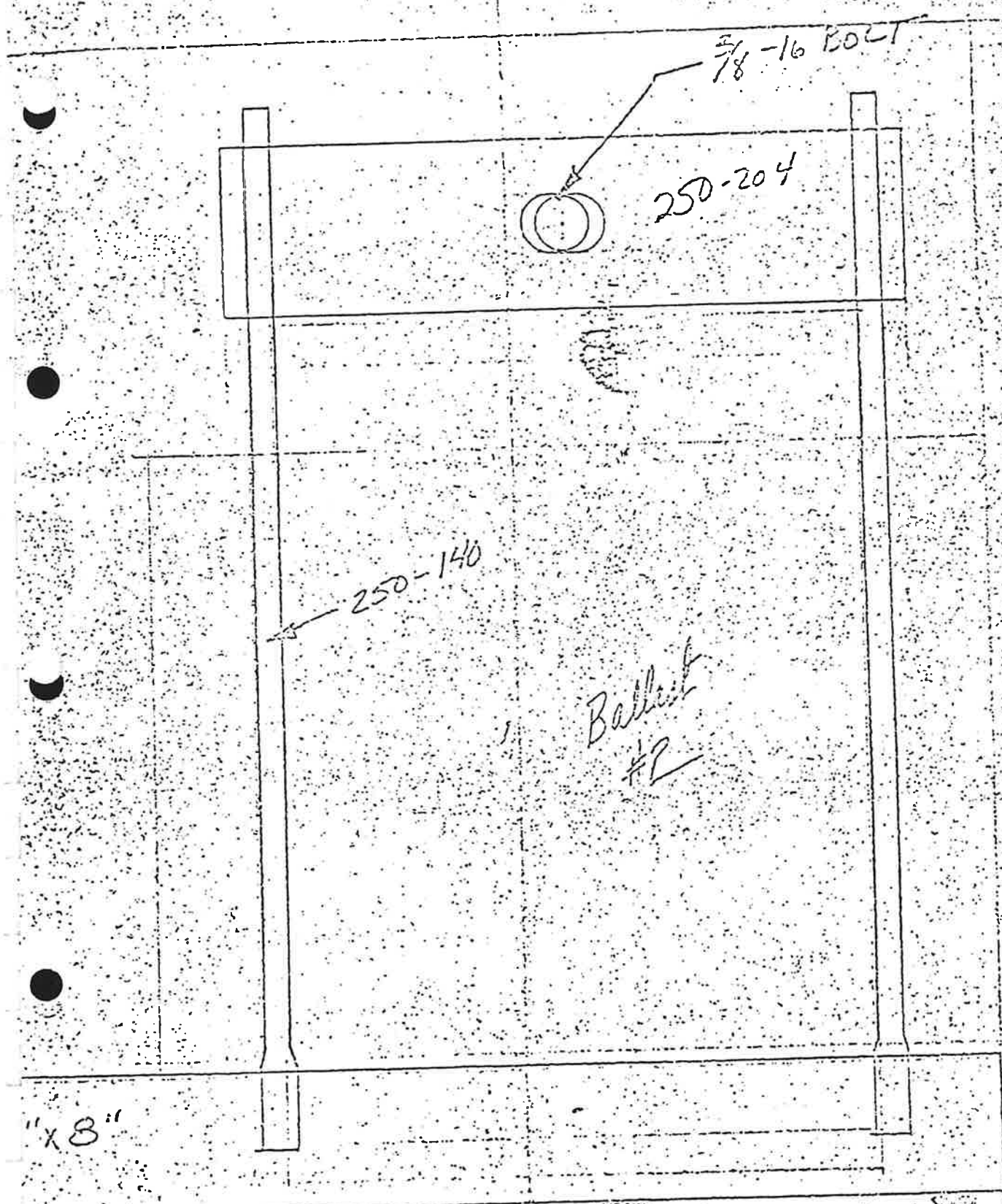
BALLAST
#2

1/8" x 1" x 8"

1/8" x 1"

SIDE VIEW

ILL. 1
SEC. 7
VOL. 1
E 33316

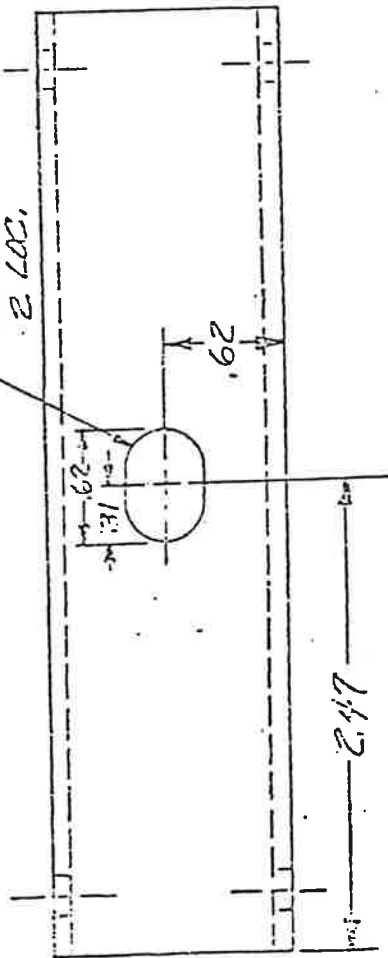


WELD 3 LOCATIONS MINIMUM;

IILL.2
SEC.7
VOL.1
E 33316

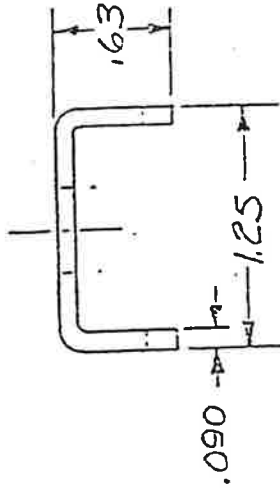
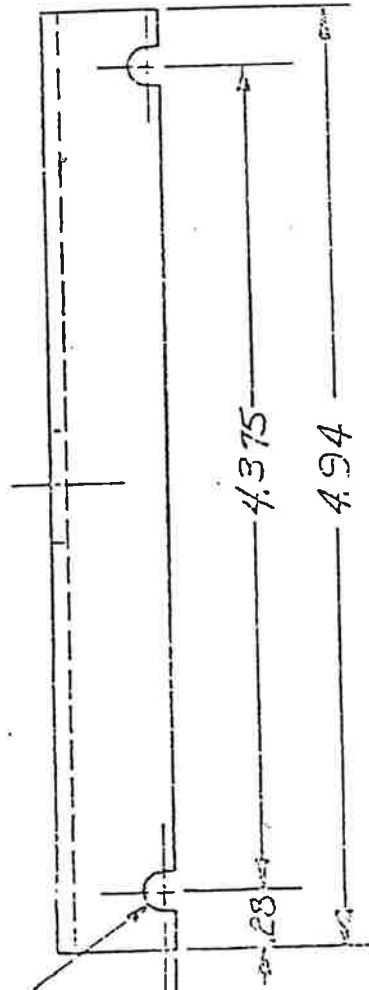
PRODUCT
SPECIFICATION

.22 R. TVP
2 LOC.



.10 R.
7/16 LOC.

.070



REVISIONS:

PART NAME:

CLAMP

MATERIAL: CES

FINISH: ZINC PLATE

SCALE: FULL

DATE: 4/19/79

APPROVED BY:

DRAWN BY: JIM

TOLERANCES UNLESS
OTHERWISE NOTED:
FRACTIONAL
2 PLACE DECIMAL $\pm .01$
3 PLACE DECIMAL $\pm .005$

G & L INDUSTRIES, INC.

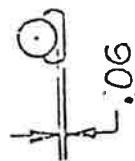
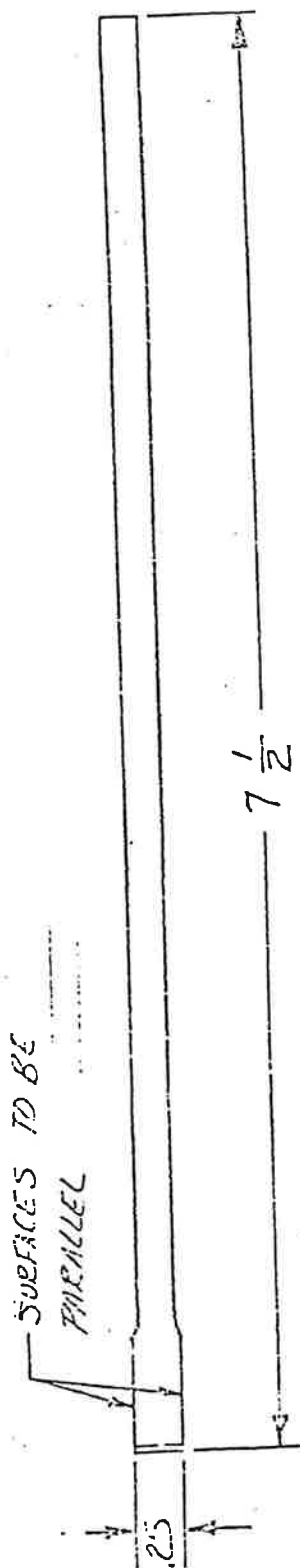
OSKALOCCA, IOWA 52577

BOX 315

DRAWING NUMBER

250-204

ILL.3
SEC.7
VOL.1
E 33316



NOTES:

1. CIRCULAR SECTION MUST PASS THRU A .203 ϕ HOLE $4 \frac{1}{2}$ " LONG.
2. SHEARED ENDS ACCEPTABLE IF MINIMIZE BURR.

ILL. 4
SEC. 7
VOL. 1
E 33315

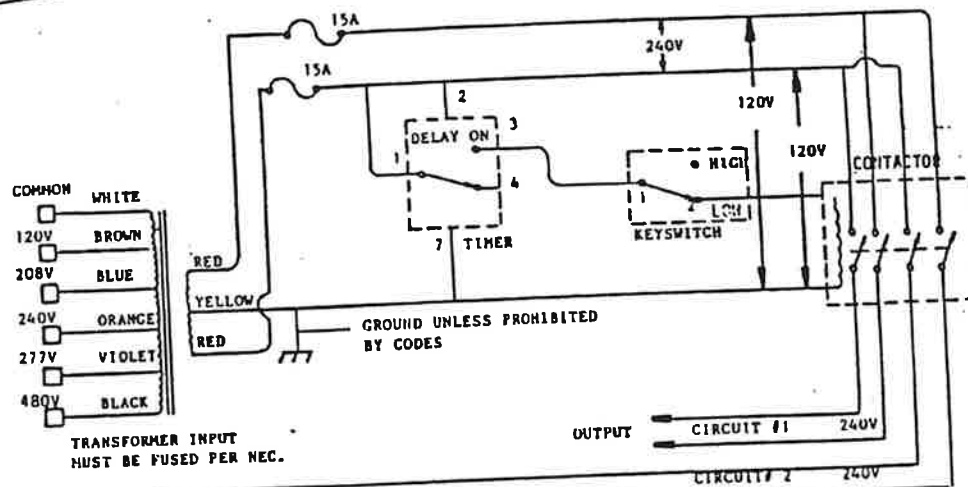
REVISIONS:	PART NAME:	TOLERANCES UNLESS OTHERWISE NOTED:
	ROD	FRACTIONAL $\pm$
		2 PLACE DECIMAL $\pm .01$
		3 PLACE DECIMAL $\pm .005$
	MATERIAL: <i>SPRING STEEL</i>	DRAWN BY: JIM
		APPROVED BY:
	FINISH: ZINC PLATE	DATE: 4/19/79
		SCALE: FULL
		DRAWING NUMBER
	G & L INDUSTRIES, INC.	250-140
	PO BOX 315	
	DELLWOOD, IOWA 52577	



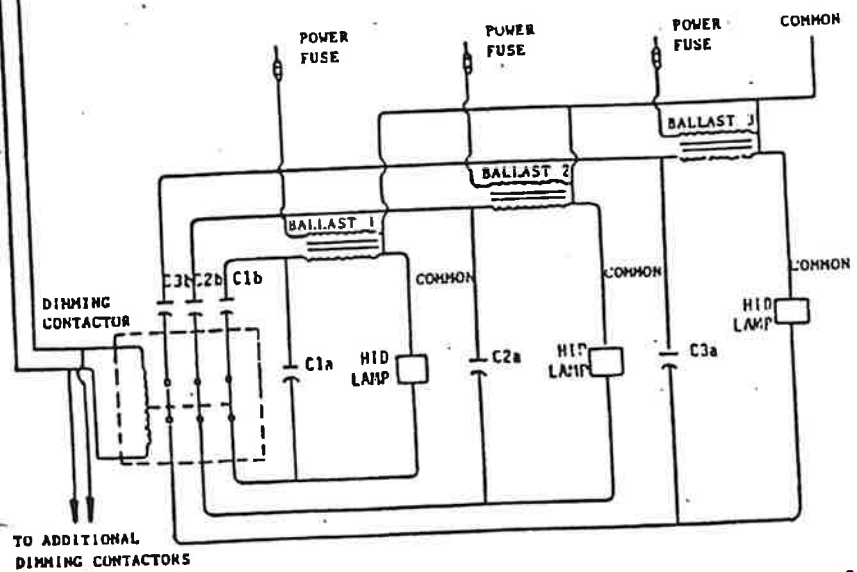
PO Box 14
2107 Stewart Road
Muscatine, Iowa 52761

REVISED
DEC 18 1990
UNDERWRITERS
LABORATORIES INC.

MULTI-WATT CONTROL BOX WIRING CIRCUIT

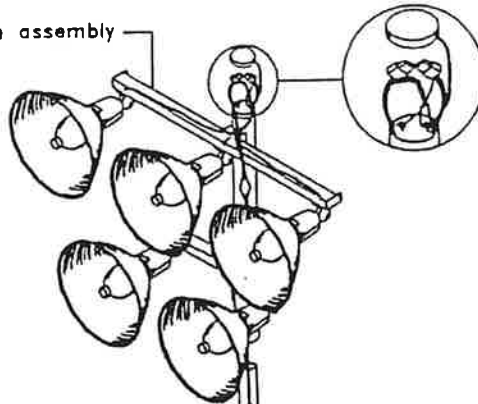


TYPICAL SPORTSCLUSTER® BALLAST BOX WIRING CIRCUIT



E33316
Vol. 1
Sec. 7
Ill. 5

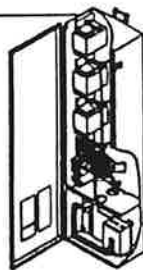
Poletop luminaire assembly



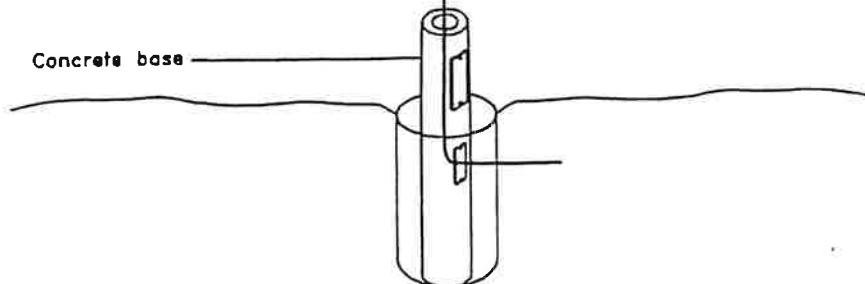
Wire harness

Steel pole

Electrical enclosure



Concrete base



REVISED

MAY 12 1995

UNDERWRITERS
LABORATORIES, INC.

File E33316

Vol. 1

Sec. 7

ILL. 6

0000
MUSCO
LIGHTING, INC.

DWG. # P080

MCN

1=45

T E S T R E C O R D N O. 1SAMPLES:

Samples of the product covered by this Report, as described in Fig. 1 were submitted by this manufacturer. No tests were considered necessary. Tests were considered covered as follows:

<u>Unit Described In Fig.</u>	<u>Test</u>	<u>File Reference</u>	<u>Report Date</u>	<u>Test No.</u>
1	Temperature and Rain	E65206	6-10-77	1 and 2

The following test record is derived from records of tests for similar product as Listed above. The test record has been deemed appropriate for use in this Report.

SAMPLE:

A production sample of this manufacturer's sports cluster 6000 W metal halide high intensity discharge lamp fixture was submitted by the manufacturer and was constructed as illustrated by Fig. 1 of this Report. The sample fixture was subjected to the following tests:

TEMPERATURE TEST:

METHOD

A sample of the high intensity discharge fixture was mounted as intended. The fixture was operated at rated ballast voltage (480 V) until constant temperatures were obtained. Thermocouples were attached throughout the assembly by means of tape, a cement made of Fuller's earth and waterglass or solder. Temperatures were measured by means of a suitable indicating potentiometer except that ballast coil temperatures marked by a dagger were calculated by the change-of-resistance method.

The sample fixture was equipped with four Sola Electric ballast, Cat. No. 78-18-16402.

RESULTS

<u>Location of Thermocouples</u>	<u>Maximum Temperature, °C</u>
Lamp holder screw shell	117
Lead 1/4 in. from lamp holder	99
Capacitor case (near ballast)	70
Ballast core	125
Ballast primary coil (outer wrap)	130
Ballast secondary coil (outer wrap)	128
Inside splice compartment on lead	60
Inside wireway on wall (closest to lamp)	45
Gasket at ballast compartment	82
Gasket at swivel bracket	61
Gasket at wireway inspection cover	42
Ballast primary (+)	139
Ballast (+)	148
Ballast secondary (+)	141
Ambient	28

RAIN TEST:

METHOD

The sports cluster fixture was mounted in the intended manner and subjected to water which simulated a beating rain for a period of 1 h. The fixture was wiped dry, opened, and inspected.

RESULTS

Upon completion of the above test the unit was examined and showed no evidence of water in the wireway, on the lamp holders or associated wiring.

ELEVATED AMBIENT TEST:

The fixture "Sport Cluster" illustrated in Fig. 1 for use in elevated ambient of 40°C and a maximum of 1000 per lamp was considered acceptable with no additional tests. Considerations were given to the lower wattage of these lamps and the direct interpolation of temperature difference in ambients.

GFW/KWL:gw

T E S T R E C O R D N O. 3SAMPLE:

Production samples of this Applicant's 4-1500 W high intensity discharge fixtures were submitted and constructed as illustrated by Fig. 1 of this Report. The sample fixture Cat. No. "Sports Cluster" was subjected to the following tests.

The thermal shock test was considered covered by the thermal shock test in Report dated June 20, 1977, Test Record No. 3.

RAIN TEST:METHOD

The fixture was operated at rated ballast voltage for 1/2 h, followed by removal and replacement of any or all movable or replaceable parts serving to compress the gasket. The fixture was then fitted with the intended supply connection mean, and mounted as intended.

The adjustable mounting of the fixture was adjusted to the most severe angle permitted by the swivel joint to 45° from the vertical.

The water spray test apparatus consisted of three spray heads mounted to a water supply pipe rack. The enclosure was positioned in the focal area of the spray heads so that the greatest quantity of water was likely to enter the enclosure. The water pressure was maintained at 5 lb/in² (34.5 kPa) at each spray head.

The water and lamp, during this rain test, were operated in the following operating sequence:

<u>Duration in Hours</u>	<u>Lamp</u>	<u>Water</u>
1	on	off
1/2	off	on
2	on	on
1/2	off	on

RESULTS

No water entered the fixture.

File E33316

*Page T2-1

Issued: 4-4-83
New: 7-26-84

T E S T R E C O R D N O. 2

SAMPLES:

Samples of the product covered by this Report, as described in Fig. 1 with the additional ballast Cat. No. 79-40-16410 were submitted by this manufacturer. No tests were considered necessary.

GMK/KH:rmf

TEMPERATURE TEST:

METHOD

A sample of the high intensity discharge post mounted fixture Cat. No. "Sports Cluster" was mounted and with the reflectors oriented in their intended position as indicated below. No room obstructions, ceiling or walls were closer than 3 ft (0.81 m) to the fixture.

Thermocouples were attached to various parts of the assembly by means of tape, solder, or a cement made of water glass and fuller's earth. The fixture was operated at rated ballast voltage until constant temperatures were reached. Temperatures were measured by means of a suitable potentiometer, except that temperature of the ballast coil windings were calculated by the change-of-resistance method.

The fixture was equipped with the following:

Test No.	Fixture Cat. No.	Ballast Mfr. and Cat. No.	Lamp Type + and Wattage	Test V	Lamp Base Orientation
1	"Sports Cluster"	(4) Sola 79-40-16402	MH 1500 W	277	up-vertical

+ - MH indicates metal hallide.

RESULTS

<u>Location of Thermocouples</u>	<u>Maximum Temperature, °C</u>
	<u>Test No.</u>
	<u>1</u>
Gasket at diffuser	96.7
O-Ring gasket at reflector top	143.3
Gasket at lamp housing top (Gasket No. 3)	79.6
Gasket in swivel joint (O-ring Gasket No. 4)	59.0
Gasket tube in swivel joint	63.5
Gasket at ballast compartment cover (Gasket No. 1)	79.2
Room ambient	24.9

PHYSICAL PROPERTIES:

METHOD

As received tensile strength and elongation were determined in accordance with ASTM D412. Specimens were also oven aged for 7 days at 100°C and were then tested in accordance with ASTM D573.

RESULTS

The results are tabulated below.

<u>As Received</u>	<u>Neoprene Gasket No. 1 In Sec. Gen.</u>
Average tensile strength, psi	285
Average elongation, percent	190
<u>After 7 Day Oven Aging At 100°C</u>	
Average tensile strength, psi	247
Percent of original	87
Average elongation, percent	140
Percent of original	75

ADHESION TESTS:

METHOD

Adhesion tests were conducted on the Gasket No. 1 sponge with 3M glue gasketing material applied to painted steel. The strips of gasketing material were pulled, one at a time, from the test panel at an angle of approximately 90° and a crosshead speed of 0.5 in./min. Specimens were tested in the as-received condition, 1/2 h after removal and 24 h after removal from the oven. Prior to testing, the test panels were conditioned at 23°C and 50 percent relative humidity.

RESULTS

The results are as follows:

As ReceivedPainted Surface

Average pounds per inch of width

0.28

After 7 Days At 100°C

1/2 h after removal

Average pounds per inch of width
Percent of original

2.52
900

24 h after removal

Average pounds per inch of width
Percent of original

1.86
664

PHYSICAL PROPERTIES:

METHOD

As received tensile strength and elongation were determined in accordance with ASTM D412. Specimens were also oven aged for 7 days at the temperatures as indicated and were then tested in accordance with ASTM D573.

RESULTS

The results are tabulated below.

	Gasket 2 Solid Silicone	Gasket 3 Durometer Silicone	Gasket 4 Silicone Elastomer
<u>As Received</u>			
Average tensile strength, psi	889	794	818
Average elongation, percent	230	230	160
<u>After 7 Day Oven Aging At 125°C</u>			
Average tensile strength, psi	1096	778	
Percent of original	123	98	
Average elongation, percent	250	260	
Percent of original	109	113	

Gasket 2	Gasket 3	Gasket 4
Solid	Durometer	Silicone
<u>Silicone</u>	<u>Silicone</u>	<u>Elastomer</u>

As Received

After 7 Day Oxygen
Bomb Aging at 80°C

Average tensile strength, psi	952
Percent of original	116
Average elongation, percent	200
Percent of original	125

METALLIC COATING THICKNESS TEST:

METHOD

The apparatus for this test consisted of a glass dispenser having a flow control stop clock, a large reservoir, and a chromic acid solution consisting of distilled water, 200 g/L of reagent grade chromic acid and 50 g/L of reagent grade concentrated sulfuric acid. The solution was at a temperature of between 21.1 and 32.2°C and regulated by the stop clock to flow at a timed, uniform rate of 100 ± five drops per minute.

Samples of the ballast enclosure cover were used in this test and were considered representative of the other parts being submitted. The sample was first washed to remove any surface contamination, then rinsed, and dried. Three points were selected and each point was positioned about an inch below the spigot orifice. The sample was inclined so that the surface was at an approximate of 45° angle with the horizontal. Timing was started from the first drop until the first appearance of base metal was recognized by the change in color. Coating thicknesses were calculated from this timing.

RESULTS

The results were as indicated in the following table.

Chromic Acid Reagent Dropping Test

<u>Sample</u>	<u>Time, s</u>	<u>Drop/Min</u>	<u>Tempera- ture °F</u>	<u>Thickness Factor 0.00001 in./s</u>	<u>Approximate Thickness</u>	
					<u>Minimum in.</u>	<u>Maximum in.</u>
		100± 5				
Outside						
1	285		76	1.033	0.00294	
2	315					
3	308					
Inside						
1	270				0.00279	
2	296					
3	298					

These results comply with the minimum thickness required of 0.00061 in.

T E S T R E C O R D N O . 4

SAMPLE:

A production sample of this Applicant's 1500 W high intensity discharge fixture was submitted and constructed as illustrated by Fig. 1 of this Report.

No tests were considered necessary, based on the review of ballast temperatures.

File E33316

*Page T5-1

Issued: 4-4-83
New: 10-31-90

T E S T R E C O R D N O. 5

SAMPLES:

Samples of the product covered by this Report, as described in Fig. 2 were submitted by this manufacturer. No tests were considered necessary. Tests were considered covered as follows:

<u>Unit Described In Fig.</u>	<u>Test</u>	<u>File Reference</u>	<u>Report Date</u>	<u>Test No.</u>
1	All	E132445	5-8-90	1
1	All	E33316	4-25-90	1

T E S T R E C O R D N O. 6SAMPLE:

A production sample of this Applicant's 6000 W intensity discharge fixture was submitted and constructed as illustrated by Fig. 1 of this Report. The sample fixture, Cat. No. Sports Cluster was subjected to the following test.

Tests were conducted at the manufacturer's facility at Advance Transformer in Rosemont, IL, and were witnessed by a representative of Underwriters Laboratories.

TEMPERATURE TEST:

METHOD

A sample of the HID post mounted fixture Cat. No. Sports Cluster was mounted to a metal post and oriented in its intended position as indicated below. No room obstructions, ceiling or walls were closer than 3 ft (0.81 m) to the fixture.

The lamp used for this test operated within 5 percent of the rated wattage and the capacitors operated within 5 percent of the rated uF required by the ballasts.

Thermocouples were attached at various points as tabulated in the results. Attachment to metallic parts was by means of solder. Attachment to nonmetallic parts was by means of an adhesive cement or a high temperature cement made of waterglass and fullers earth. Temperatures were recorded by means of suitable instrumentation.

The ambient temperature was measured by means of a thermocouple immersed in a bath of 15 ml of mineral oil in a glass container. The oil bath was placed (1) at the same level as the horizontal plane formed by a line that passes through the fixture halfway down its vertical length and (2) at least three fixture diameters from the fixture horizontally. Test was conducted at an ambient temperature of $25 \pm 5^{\circ}\text{C}$ ($77 \pm 9^{\circ}\text{F}$).

The fixture was energized by an AC source adjusted to rated fixture wattage and ballast voltage (see RESULTS for specifics) and operated until constant temperatures were attained. A temperature is considered to be constant when three successive readings, taken at 30 min intervals, indicate no change. The first reading is to be taken no sooner than 3-1/2 h after the test has begun.

RESULTS

	<u>Test No.</u> <u>1</u>
Model	Sports Cluster
Supply voltage	277
Lamp wattage	1500
Lamp type	MH
Number of lamps	4
Ballast manufacturer	Advance
Ballast Cat. No.	71A6792
Insulation class	H
Test duration	Stable

HID Tests

Measured lamp voltage	244
A	6.53
W	1470
Capacitance (uF)	32

<u>Location of Thermocouples</u>	<u>Maximum Temperature (°C)</u> <u>Test No. 1</u>
Capacitor case - near ballast	50
Ballast core - near lamp	131
Primary coil winding (tap to power)+	103
Primary coil winding (tap to common)+	108
Secondary coil winding+	128
Ambient	29

+ - Temperatures were calculated by change-of-resistance method.

C O N C L U S I O N

Samples of the products covered by this Report have been found to comply with the requirements covering the class and the products are judged to be eligible for Listing and Follow-Up Service. The manufacturer is authorized to use the Laboratories' Mark on such products which comply with the Follow-Up Service Procedure and any other applicable requirements of Underwriters Laboratories Inc. Only those products which properly bear the Laboratories' Mark are considered as Listed by Underwriters Laboratories Inc.

Report by:
JANET S. RYAN
Engineering Assistant
Electrical Department

G. F. Walbrecht

G. F. WALBRECHT
Senior Project Engineer
Electrical Department

Reviewed by:

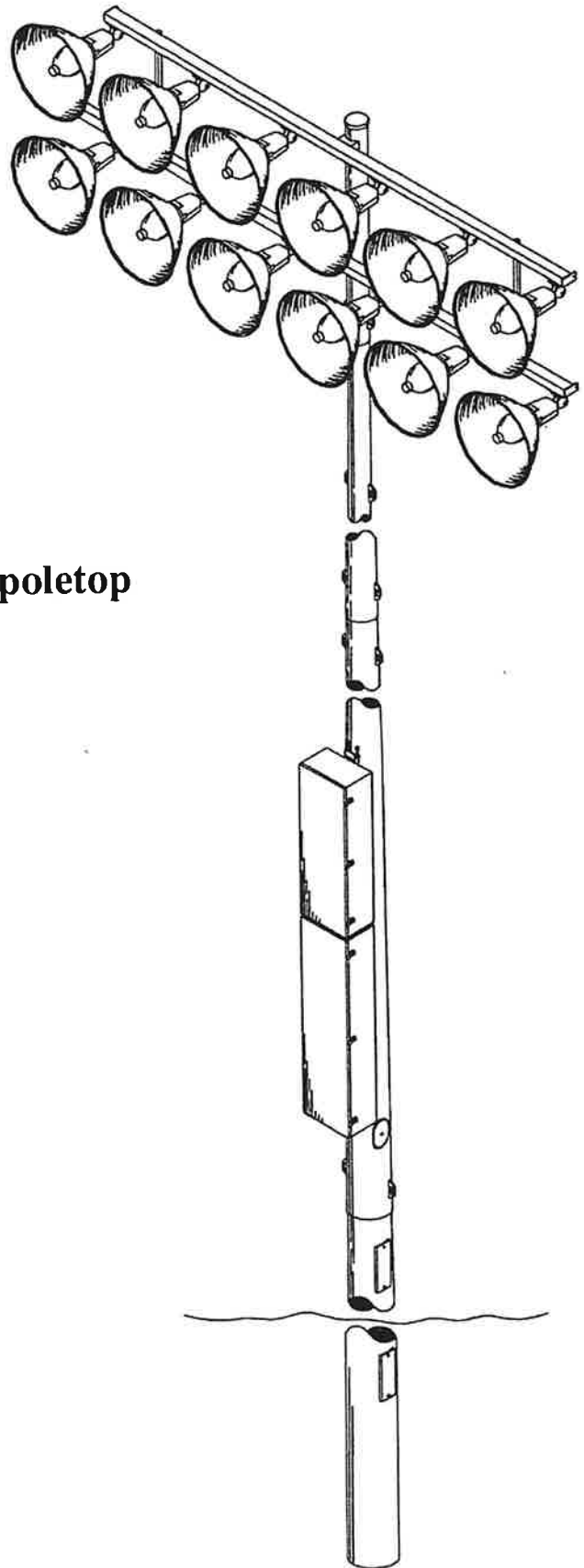
K. W. Long

K. W. LONG
Engineering Group Leader
Electrical Department

GFW/KWL:gw

Light-Structure System™

12 Fixture Luminaire Assembly



**Engineered as a system . . .
complete from foundation to poletop**

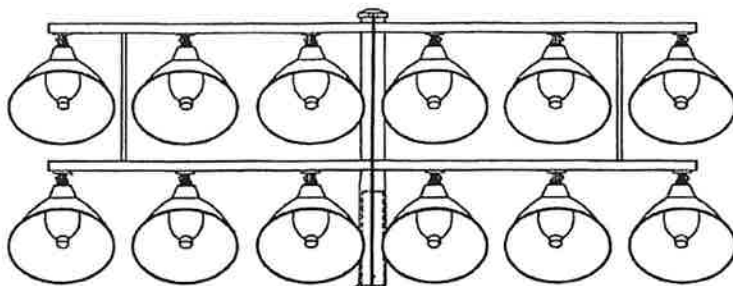
5 Easy Pieces

- Poletop luminaire assembly
- Wire harness (inside pole)
- Steel pole sections
- Electrical enclosure
- Concrete base



© 1993 Musco Sports Lighting, Inc.
Light-Structure System is protected by one or more of the following U.S. patents:
4725934, 4190881, D254694, 4374407, D257891, 4729077, 4450507, 4816974,
4947303, 4994718, 5016150, 5075828, 5134557, 5161883.
Canada: 1114798, "Rd" 1992 Musco #70479. Other patents pending.

Not to scale



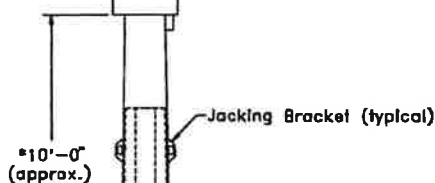
Pole Top Assembly

Steel Pole Section
1, 2, 3 or 4 Pieces

Wire Harness
Inside Pole
One Harness For
Each Electrical Enclosure

Electrical Enclosures

- Ballasts
- Capacitors
- Fusing
- Primary Landing Lugs
- One Circuit Breaker
Per Light Structure System



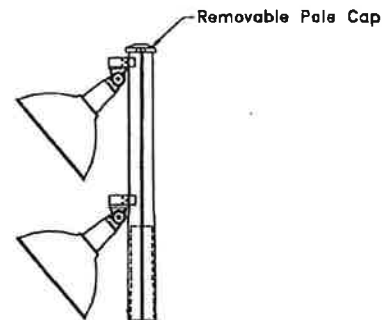
*10'-0"
(approx.)

Ground level

Concrete Base
Centrifugally Spun,
Prestressed

Concrete Backfill

FRONT VIEW
FIELD SIDE



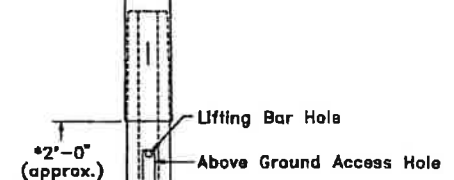
Removable Pole Cap

Wire Harness
Inside Pole

Electrical Enclosure
Attachment Bracket
(typ. of 2)

Wire Access Hub
Location w/ Grounding Lug

4" X 6-1/2" Handhole



*2'-0"
(approx.)

Lifting Bar Holes

Above Ground Access Hole

Ground level

Underground Access Hole

SIDE VIEW

Not to scale

© 1993 Musco Sports Lighting, Inc.

***Note:**

Included with each project are the following:

- (1) Installation lifting bar
- (1) Offset installation level
- (3) Installation wedges

***Note:**

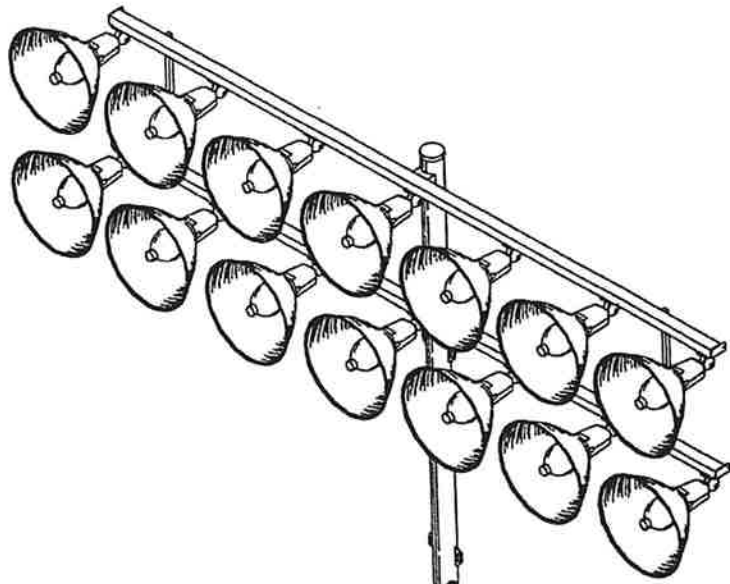
This dimension for reference only. Variances will occur depending on the following:

- (1) Steel pole tolerances
- (2) Concrete tolerances
- (3) Galvanizing thicknesses

Based upon these, a variance may be seen. Additional variances will occur depending on the hole depth accuracy.

Light-Structure System™

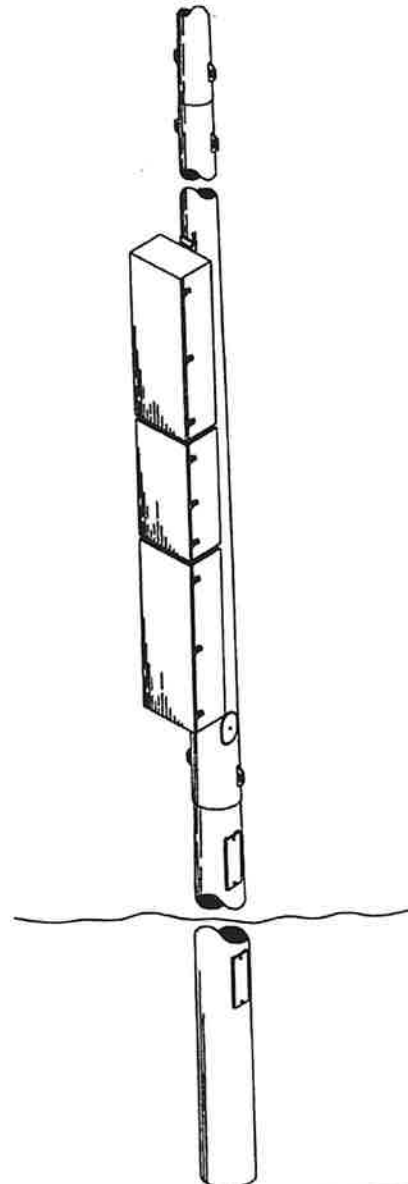
14 Fixture Luminaire Assembly



**Engineered as a system . . .
complete from foundation to poletop**

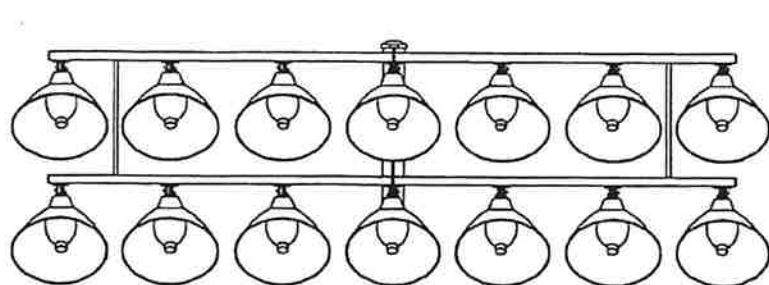
5 Easy Pieces

- Poletop luminaire assembly
- Wire harness (inside pole)
- Steel pole sections
- Electrical enclosure
- Concrete base



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Light-Structure System is protected by one or more of the following U.S. patents:
4725934, 4190881, D254694, 4374407, D257891, 4729077, 4450507, 4816974,
4947303, 4994718, 5016150, 5075828, 5134557, 5161863.
Canada: 1114798, "Rd" 1992 Musco #70479. Other patents pending.

Not to scale



Pole Top Assembly

Steel Pole Section
1, 2, 3 or 4 Pieces

Wire Harness
Inside Pole
One Harness For
Each Electrical Enclosure

Electrical Enclosures

- Ballasts
 - Capacitors
 - Fusing
 - Primary Landing Lugs
 - One Circuit Breaker
- Per Light Structure System

Jacking Bracket (typical)

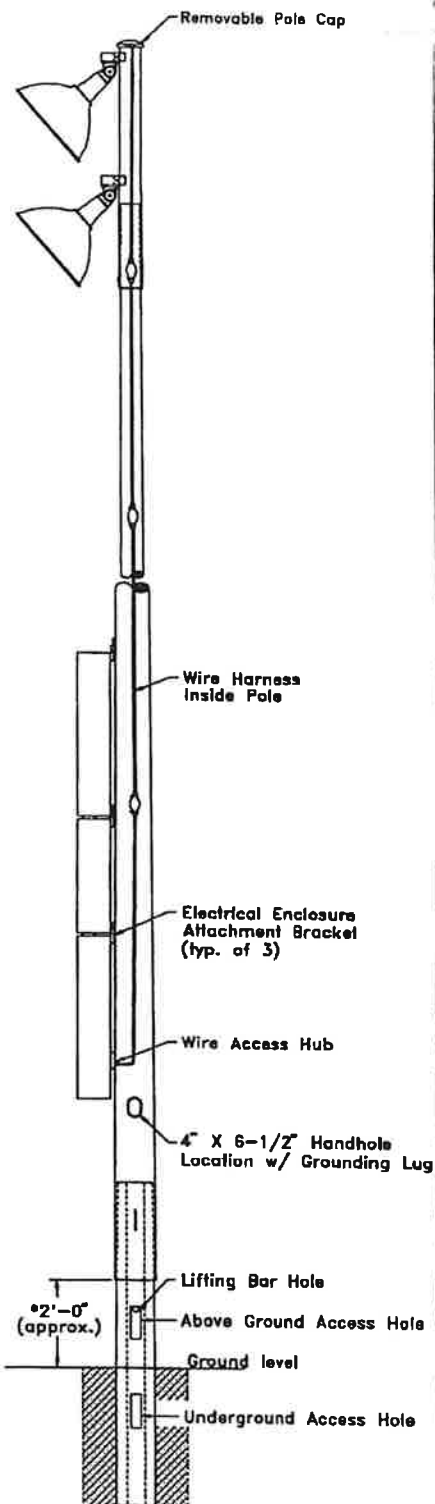
≈10'-0"
(approx.)

Ground level

Concrete Base
Centrifugally Spun,
Prestressed

Concrete Backfill

FRONT VIEW
FIELD SIDE



SIDE VIEW

Not to scale

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***Note:**

Included with each project are the following:

- (1) Installation lifting bar
- (1) Offset installation level
- (3) Installation wedges

***Note:**

This dimension for reference only. Variances will occur depending on the following:

- (1) Steel pole tolerances
- (2) Concrete tolerances
- (3) Galvanizing thicknesses

Based upon these, a variance may be seen. Additional variances will occur depending on the hole depth accuracy.