

circuit breakers, grounding electrode(s) and connections, and treated wood post(s) and base(s); and for all labor, tools, equipment, and incidentals necessary to complete the work.

**12. Lighted Bollard, Item 90005A.**

A. Description. This work shall consist of furnishing and installing cast aluminum lighted bollards as shown on the plans, in accordance with manufacturer's specifications and recommendations, and as directed by the Engineer.

B. Materials. Lighted Bollard shall be CAPITOL Series Cast Aluminum Lighted Bollard, Catalog # BOL/C44/13/L/CA/DB/M50/120/RB/GFI/WPC as manufactured by ANTIQUE Street Lamps, Inc., 2011B W. Rundberg Lane, Austin, Texas 78758.

C. Construction Methods. All work shall be in accordance with the plans and the manufacturer's recommendations for materials and procedures. The bollard shall be set plumb and in proper alignment as shown on the plans.

D. Method of Measurement. Lighted Bollard will be measured for payment as a unit, completed in place and accepted.

E. Basis of Payment. Lighted Bollard, measured as provided above, will be paid for at the contract unit price each, which price shall be payment in full for all materials and completing all work required under this item; and for all labor, tools, equipment, and incidentals necessary to complete the work in accordance with the plans and the manufacturer's specifications and recommended installation procedures.

**13. Lighted Bollard PEC, Item 90005B.**

A. Description. This work shall consist of furnishing and installing cast aluminum lighted bollards as shown on the plans, in accordance with manufacturer's specifications and recommendations, and as directed by the Engineer.

B. Materials. Lighted Bollard shall be CAPITOL Series Cast Aluminum Lighted Bollard, Catalog # BOL/C44/13/L/CA/DB/M50/120/RB/GFI/WPC/PEC as manufactured by ANTIQUE Street Lamps, Inc., 2011B W. Rundberg Lane, Austin, Texas 78758.

C. Construction Methods. All work shall be in accordance with the plans and the manufacturer's recommendations for materials and procedures. The bollard shall be set plumb and in proper alignment as shown on the plans.

D. Method of Measurement. Lighted bollard will be measured for payment as a unit, completed in place and accepted.

# SUBMITTAL REVIEWS

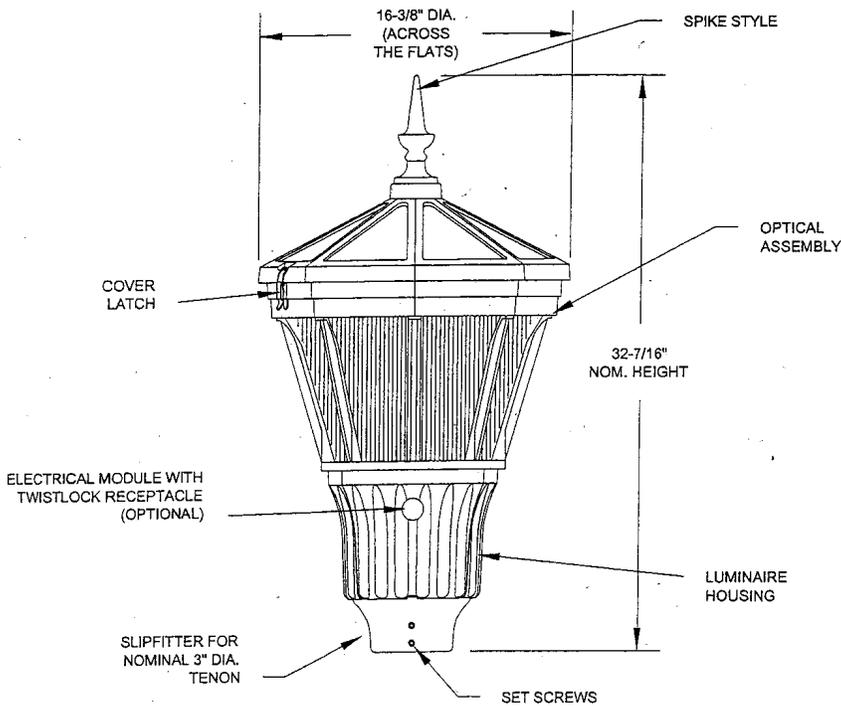
Contract 282-05-01  
Village of Sister Bay  
Page 2 of 2  
3/24/2005

<u>Description</u>	<u>Comments</u>
Selector Switches	Reviewed, with following exception: - Label selector switches "Photo Control Bypass" and "Time Clock Bypass".
Control Cabinet	Reviewed, with following exception: - Enclosure shall be finish painted with Rustoleum #906 silver gray, or equivalent, as per Sheet 13, Note 11.
Wire	Reviewed, no exceptions noted.
Type A-FIXT	Reviewed, with following exception: - Revise cat. no. to ARU175MH-MT-C-Z-G3. ←
Type A-Pole	Reviewed, no exceptions noted.
Type B-FIXT	Reviewed, with following exception: - Revise cat. no. to ARU175MH-MT-C-Z-G3. ←
Type B-Pole	Reviewed, no exceptions noted.
Type D-FIXT	Reviewed, with following exception: - Revise cat. no. to ARU175MH-MT-C-Z-G3-SD ← (House Side Shield)..
Type D-Pole	Reviewed, no exceptions noted.

\*\*\* END OF ELECTRICAL SUBMITTALS REVIEW COMMENTS \*\*\*

# Utility Arlington® Series Luminaire

Maximum weight - 47 lbs  
Maximum effective projected area - 1.38 sq. ft.



### ORDERING INFORMATION

EXAMPLE: ARU 050HP 12 B G3  
ARU 175MH MT C2 G3

#### BALLAST TYPE

(MOGUL BASE)  
050HP = 50W HPS  
070HP = 70W HPS  
100HP = 100W HPS  
15AHP = 150W 55V HPS  
175MH = 175W MH  
100MV = 100W MV  
175MV = 175W MV  
250MV = 250W MV  
(G3 ONLY)

#### BALLAST TYPE

(MEDIUM BASE)  
50DHP = 50W HPS  
70DHP = 70W HPS  
100DHP = 100W HPS  
15DHP = 150W 55V HPS  
70DMH = 70W MH (NOT AVAIL. W/ 480V)  
100DMH = 100W MH (NOT AVAIL. W/ 480V)  
15DMH = 150W MH (NOT AVAIL. W/ 480V)  
17DMH = 175W MH

#### OPTIONS

C = IES CUTOFF  
P = PROTECTED STARTER FOR HPS UNITS ONLY  
H = NEMA TWISTLOCK PHOTOCONTROL RECEPTACLE (DOES NOT INCLUDE PHOTOCONTROL)  
T = BOTH NEMA TWISTLOCK RECEPTACLE AND PROTECTED STARTER TOGETHER (HPS UNITS ONLY)

#### ACCESSORIES

LAMP = SHIP APPROPRIATE LAMP AS A LINE ITEM. SEE LAMP SHEET

#### VOLTAGE

12 = 120 VOLT  
20 = 208 VOLT  
24 = 240 VOLT  
27 = 277 VOLT  
34 = 347 VOLT (C.U.L.)  
48 = 480 VOLT  
MT = MULTITAP  
(120, 208,  
240, 277  
VOLT)

#### COLOR

B = BLACK  
Z = BRONZE  
N = GREEN  
A = AS SPEC.

#### OPTICS

G3 = ASYMMETRIC GLASS  
REFRACTOR  
A3 = ASYMMETRIC  
ACRYLIC REFRACTOR  
(not avail. w/250MV)  
A5 = SYMMETRIC  
ACRYLIC REFRACTOR  
(not avail. w/250MV)  
P3 = ASYMMETRIC  
POLYCARBONATE  
REFRACTOR  
(not avail. w/250MV)  
P5 = SYMMETRIC  
POLYCARBONATE  
REFRACTOR  
(not avail. w/250MV)

## Specifications

### GENERAL DESCRIPTION

The Utility Arlington is designed for ease of maintenance with the plug-in electrical module common to each of the luminaires in Holophane's Utility Luminaire Series. A precision optical system maximizes post spacings while maintaining uniform illumination.

### OPTICAL SYSTEM

The optical system consists of a precisely molded refractor operating in conjunction with a formed anodized aluminum reflector located in the top cover. Positive pressure from three coiled springs backing the reflector and gaskets at the top and bottom of the refractor create a sealed optical compartment. Refractors designed to provide an I.E.S. Type III distribution are available molded from thermal resistant borosilicate glass and acrylic or polycarbonate plastic. Type V refractors are available in acrylic or polycarbonate only. An IES cutoff option is available.

### LUMINAIRE HOUSING

The luminaire housing, cast of aluminum, cradles the refractor and provides an enclosure for the plug in electrical module. The nickel plated lamp grip socket and the three station incoming line terminal block are pre-wired to a five conductor receptacle for ease in connecting the electrical module. A slipfitter will accept a 3" high by 2 7/8" to 3 1/8" O.D. pole tenon.

### LUMINAIRE HOUSING / DOOR

Cast of aluminum, the housing / door is removable without the use of tools and is retained by a stainless steel aircraft cable. For units with an E.E.I.-N.E.M.A. twist lock photocell receptacle, the door contains an acrylic "window" to allow light to reach the cell.

### ELECTRICAL MODULE

The ballast components are mounted on a steel plate that is removable without the use of tools. A matching five conductor plug connects to the receptacle in the luminaire housing to complete the wiring. Where a starting aid is required, it is provided with a separate plug-in connector and can be replaced without the use of tools. For photoelectric operation, the electrical module is provided with an E.E.I.-N.E.M.A. twist lock photocell receptacle.

### TOP COVER

The octagonal cover, cast of aluminum, is attached to the top ring of the luminaire housing by a stainless steel piano hinge and latched by an overcenter, positive action, stainless steel latch which allows tool-less entry to the lamp chamber for relamping.

### BALLASTS

(Refer to the Ballast Handbook for specific operating characteristics)

50 watt 120 volt High Pressure Sodium (HPS) ballasts are High Power Factor Reactor type. All other HPS ballasts are High Power Factor Autotransformer type.

175 watt Metal Halide (MH) ballasts are Peak Lead Autotransformer type. 70 and 100 watt MH units are available only with High Power Factor High Reactance type ballasts.

All Mercury Vapor (MV) ballasts are High Power Factor Constant Wattage Autotransformer (CWA) type.

### FINISH

The luminaire is finished with polyester powder paint applied after a seven stage pretreatment process to insure maximum durability.

ARCHITECTURAL OUTDOOR ORDER #:

TYPE: A

DRAWING NO: US-2584

THIS DRAWING, WHEN APPROVED, SHALL BECOME THE COMPLETE SPECIFICATION FOR THE MATERIAL TO BE FURNISHED BY HOLOPHANE ON THE ORDER NOTED ABOVE. A UNIT OF SIMILAR DESIGN MAY BE SUPPLIED, BUT ONLY AFTER APPROVAL BY THE CUSTOMER IN WRITING. ON POLE ORDERS AN ANCHOR BOLT TEMPLATE PRINT WILL BE SUPPLIED WITH EACH ANCHOR BOLT ORDER TO MATCH THE POLE PROVIDED.

THIS PRINT IS THE PROPERTY OF HOLOPHANE AND IS LOANED SUBJECT TO RETURN UPON DEMAND AND UPON EXPRESS CONDITION THAT IT WILL NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO OUR INTERESTS, AND ONLY IN CONNECTION WITH MATERIAL FURNISHED BY HOLOPHANE.

  
**HOLOPHANE**  
LEADER IN LIGHTING SOLUTIONS

Holophane

214 OAKWOOD AVENUE - NEWARK, OHIO 43055

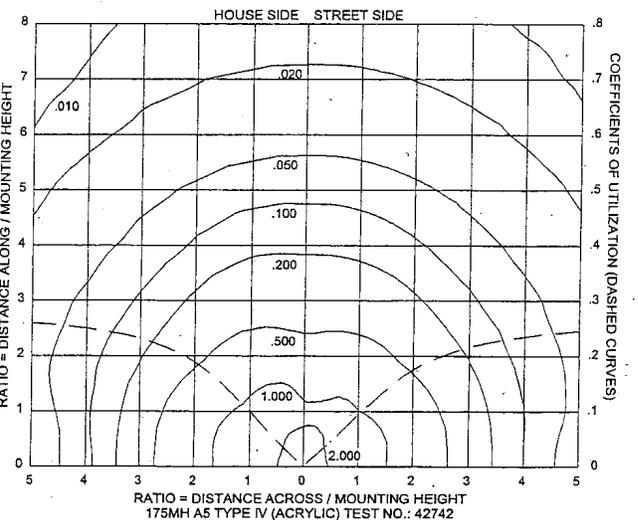
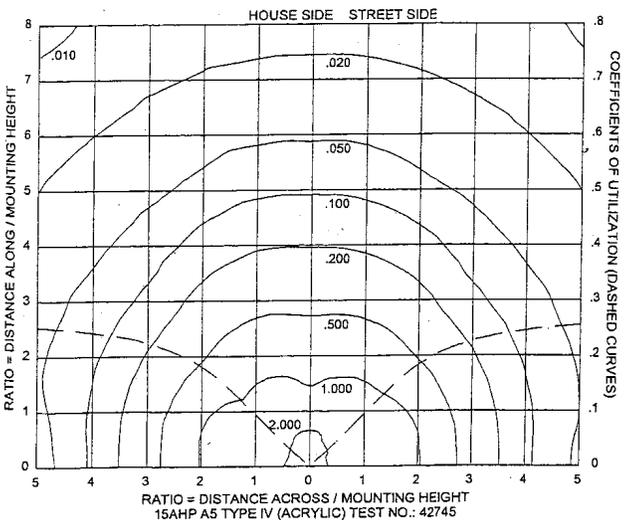
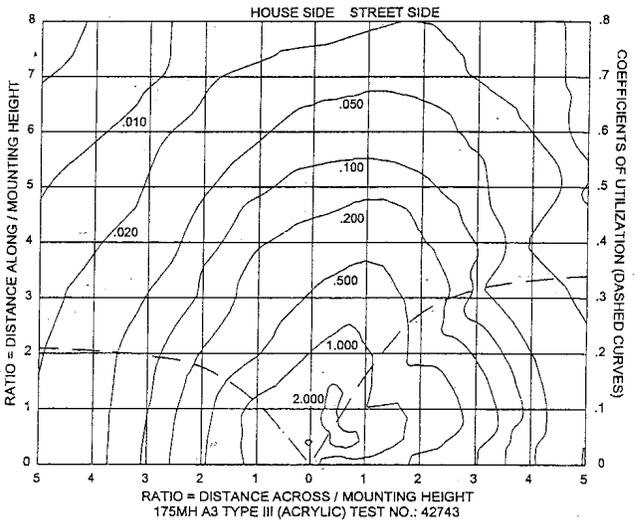
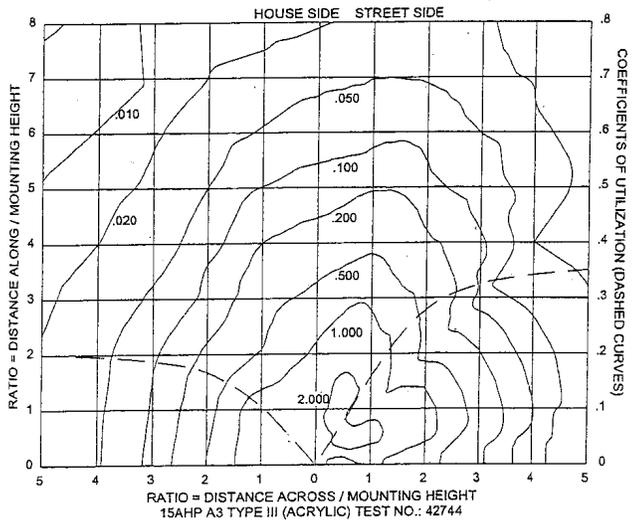
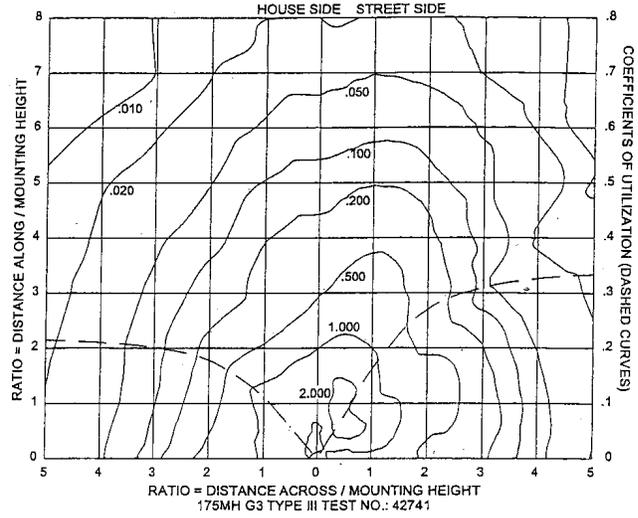
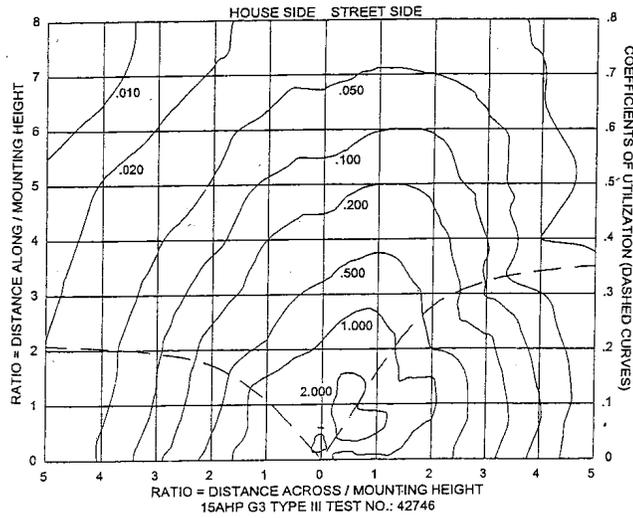
ARU-175MH-MT-C-2-G3

SCALE: N/A

DRAWN: RAF

APP'D:

DATE: 12-12-01



Holophane

214 OAKWOOD AVENUE - NEWARK, OHIO 43055

TYPICAL PHOTOMETRIC DATA  
(ISOFOOTCANDLE CHARTS AND  
COEFFICIENT OF UTILIZATION  
CURVES)

Isofootcandle data is based on a 15 foot mounting height. To determine values for mounting heights other than 15 feet, multiply the values for mounting heights following factors:

10' - 2.25	12' - 1.56	14' - 1.15
16' - 0.88	18' - 0.69	20' - 0.56
22' - 0.46	24' - 0.39	

**COMPOSITE  
TUFF-POLE**

Project: Village of Sister Bay Street Ltg  
 Fixture Type: A  
 Mfg: Shakespeare Composite Poles  
 Catalog #: AJ20-14.5-F-S-5-W1

Jefferson Style, **20" Anchor Base** and Direct Burial

THE HISTORICAL SERIES

*Jefferson*

Distinctive, classical beauty

Virtually maintenance free, durable fiberglass reinforced composite

One-piece construction

Smooth or fluted, tapered shafts

Standard or custom finishes and colors

Seven standard, 23 premium colors; architectural colors available

Gloss or semi-gloss finishes standard; custom finishes available

Mounting heights of 9.5, 12, or 14.5 feet; custom heights to 22 feet

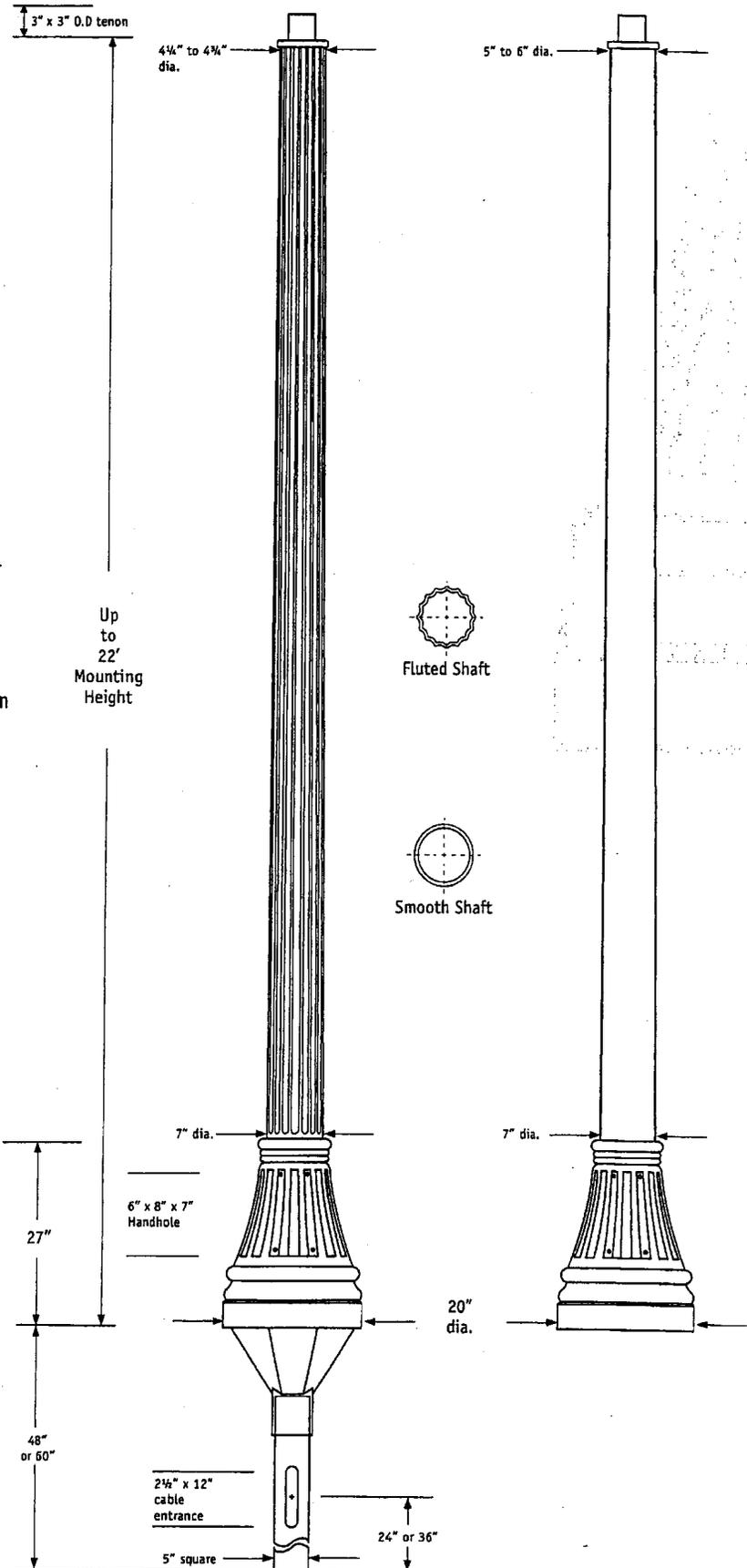
Superior wind, loading, and environmental tolerance

Non-conductive for safety

Molded-in color; UV and weather resistant polyurethane coating

Standard 3" x 3" dia. aluminum tenon for luminaire mounting

Anchor Base or Direct Burial

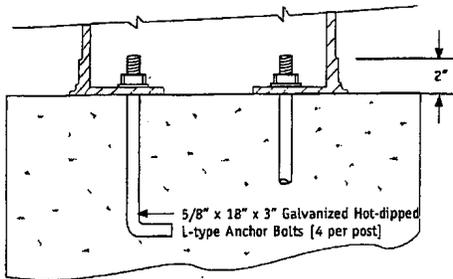


# AJ20 and BJ20

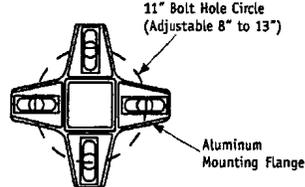
## Jefferson, 20" Anchor and Direct Burial Base

All dimensions and specifications nominal, and subject to change without notice or obligation. Please contact factory before site preparation begins.

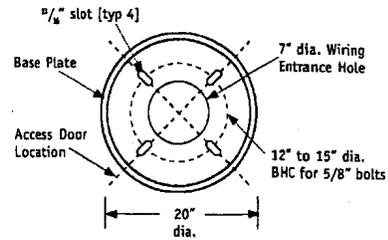
### Suggested Anchorage Detail (Anchor Base)



### Optional Composite Burial Foot



### Jefferson Anchor Bolt Pattern Detail



### OPTIONS

**3-Bolt Base** or optional **Bolt Circle**: contact factory.

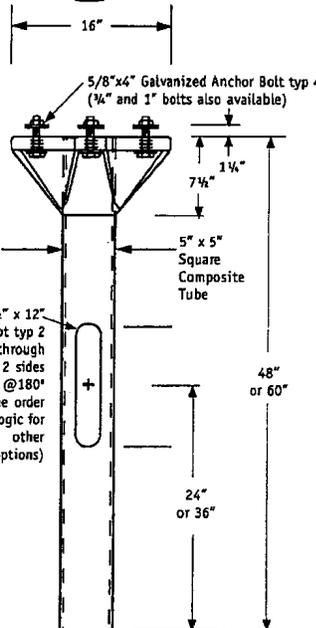
Weatherproof receptacle mounted 9" from top of pole, 90° clockwise from handhole: add "W1" to the catalog number.

Weatherproof receptacle mounted 18" from the top of the base on the shaft, 90° clockwise to the handhole: add "W2" to the catalog number. For other receptacle options, specify or contact factory.

Banner arms, flag brackets, luminaires, and other attachments are available. Contact factory.

Decorative Twin Fixture Crossarm (Catalog number A-30) add "A1" to pole catalog number. See Arms and Brackets brochure for other decorative twin arms.

Detachable Composite Burial Foot permits direct burial of foot prior to mounting. See Burial Foot brochure for specifications and catalog numbers.



### How to Specify

**Description:** The pole shaft and base (and internal mounting flange) shall all be molded of non-corroding fiberglass reinforced composite, pigmented throughout, and finished in the same color as specified. The (fluted) shafts shall be tapered and formed with 16 flutes separated by semi-flat ribs. The (smooth) shafts shall be filament wound with a smooth, tapered surface. The base shall be shaped similar to Shakespeare Composite Structures Jefferson Style AJ20 (anchor base) / BJ20 (direct burial).

**Dimensions:** The pole shall be 9.5, 12, or 14.5 feet mounting height (custom heights to 22') with a 20-inch diameter base. A 3" diameter by 3" high aluminum tenon shall be provided for luminaire mounting. (Direct Burial) The direct burial foundation shall be 48" (60") overall length and provided with a 2.5" x 12" conductor entrance centered 24" (36") from the bottom of the direct burial base (see order logic for other options). (Anchor Base) The internal mounting flange shall be provided with four 13/16" slots to accommodate 4 anchor bolts 5/8" x 18" x 3" in a 12" to 15" bolt circle.

**Construction:** The shaft shall be round with a uniform taper along the fluted (smooth) shaft. A handhole with a weather resistant cover shall be provided in the base for wiring access (if anchor base) and anchorage. The opening shall be no smaller than 6" wide at the top by 8" at the bottom by 7" high. The cover shall be made of fiberglass reinforced composite and shall bear the manufacturer's name. The cover shall be attached with 2 stainless steel flat countersunk hex socket head screws. Threaded inserts shall be incorporated in the pole base.

The (anchor base) mounting flange shall be molded in one piece of fiberglass reinforced composite with a minimum thickness of 1/2" and shall be permanently bonded flush to the bottom of the base. Each pole shall be finished with a (glossy / semi-gloss) weather resistant polyurethane having a minimum dry film thickness of 1.5 mils.

(Add "Performance and Testing Requirements" from Specification Data sheet.)

### EPA Rating

Jefferson style poles are engineered to withstand at least 100 mph wind forces (calculated per AASHTO standards and including a 30% gust factor), with luminaires up to 6.2 EPA (sq. ft.) weighing up to 150 pounds. For other loading requirements, contact factory.

### Catalog Numbers for Jefferson Style 20"

<b>Base Type</b> A=Anchor Base B=Direct Burial Style J=Jefferson	<b>Shaft Type</b> F=Fluted S=Smooth	<b>Color</b> 1=Black 2=Gray 3=Brown 4=Dk Green 5=Dk Bronze 6=Silver 7=White 9=Specify*	<b>Options</b> (See "Options" above)																		
<b>AJ20</b>	<b>-14.5</b>	<b>F</b>	<b>S</b>																		
<b>Base Dia. (in.)</b> 20"	<b>Mounting Height (ft.)</b> 9.5, 12, 14.5, or custom up to 22	<b>Finish</b> G=Gloss S=Semi-gloss	<b>Direct Burial Conduit Entrance</b> (use "1" for Anchor Base) Location from bottom of pole																		
			<table border="1"> <tr> <td></td> <td>1 ea.</td> <td>2 ea.</td> </tr> <tr> <td>None</td> <td>1</td> <td>1</td> </tr> <tr> <td>12"</td> <td>2</td> <td>3</td> </tr> <tr> <td>18"</td> <td>4</td> <td>5</td> </tr> <tr> <td>24"</td> <td>6</td> <td>7</td> </tr> <tr> <td>Other (specify)</td> <td>0</td> <td>0</td> </tr> </table>		1 ea.	2 ea.	None	1	1	12"	2	3	18"	4	5	24"	6	7	Other (specify)	0	0
	1 ea.	2 ea.																			
None	1	1																			
12"	2	3																			
18"	4	5																			
24"	6	7																			
Other (specify)	0	0																			

\*Standard, premium, and architectural colors are available. See Tuff-Pole® Color Palette brochure.

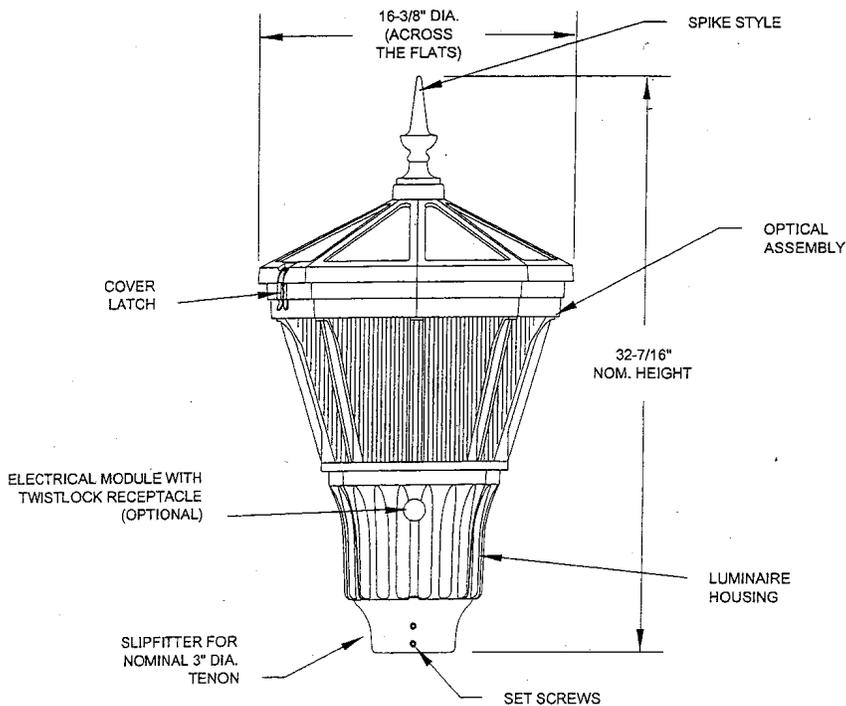


803.276.5504 • 800.800.9008 • F/803.276.8940  
 www.skp-cs.com • decorative@skp-cs.com

A Division of Genlyte Thomas Group, LLC

# Utility Arlington® Series Luminaire

Maximum weight - 47 lbs  
Maximum effective projected area - 1.38 sq. ft.



### ORDERING INFORMATION

EXAMPLE: ARU 050HP 12 B G3  
ARU 175MH MT G2 G3

**BALLAST TYPE (MOGUL BASE)**  
050HP = 50W HPS  
070HP = 70W HPS  
100HP = 100W HPS  
15AHP = 150W 55V HPS  
175MH = 175W MH  
100MV = 100W MV  
175MV = 175W MV  
250MV = 250W MV (G3 ONLY)

**VOLTAGE**  
12 = 120 VOLT  
20 = 208 VOLT  
24 = 240 VOLT  
27 = 277 VOLT  
34 = 347 VOLT (C.U.L.)  
48 = 480 VOLT  
MT = MULTITAP (120, 208, 240, 277 VOLT)

**COLOR**  
B = BLACK  
Z = BRONZE  
N = GREEN  
A = AS SPEC.

**OPTICS**  
G3 = ASYMMETRIC GLASS REFRACTOR  
A3 = ASYMMETRIC ACRYLIC REFRACTOR (not avail. w/250MV)  
A5 = SYMMETRIC ACRYLIC REFRACTOR (not avail. w/250MV)  
P3 = ASYMMETRIC POLYCARBONATE REFRACTOR (not avail. w/250MV)  
P5 = SYMMETRIC POLYCARBONATE REFRACTOR (not avail. w/250MV)

**BALLAST TYPE (MEDIUM BASE)**  
50DHP = 50W HPS  
70DHP = 70W HPS  
100DHP = 100W HPS  
15DHP = 150W 55V HPS  
70DMH = 70W MH (NOT AVAIL. W/ 480V)  
10DMH = 100W MH (NOT AVAIL. W/ 480V)  
15DMH = 150W MH (NOT AVAIL. W/ 480V)  
17DMH = 175W MH

**OPTIONS**  
C = IES CUTOFF  
P = PROTECTED STARTER FOR HPS UNITS ONLY  
H = NEMA TWISTLOCK PHOTOCONTROL RECEPTACLE (DOES NOT INCLUDE PHOTOCONTROL)  
T = BOTH NEMA TWISTLOCK RECEPTACLE AND PROTECTED STARTER TOGETHER (HPS UNITS ONLY)

**ACCESSORIES**  
LAMP = SHIP APPROPRIATE LAMP AS A LINE ITEM. SEE LAMP SHEET

## Specifications

### GENERAL DESCRIPTION

The Utility Arlington is designed for ease of maintenance with the plug-in electrical module common to each of the luminaires in Holophane's Utility Luminaire Series. A precision optical system maximizes post spacings while maintaining uniform illumination.

### OPTICAL SYSTEM

The optical system consists of a precisely molded refractor operating in conjunction with a formed anodized aluminum reflector located in the top cover. Positive pressure from three coiled springs backing the reflector and gaskets at the top and bottom of the refractor create a sealed optical compartment. Refractors designed to provide an I.E.S. Type III distribution are available molded from thermal resistant borosilicate glass and acrylic or polycarbonate plastic. Type V refractors are available in acrylic or polycarbonate only. An IES cutoff option is available.

### LUMINAIRE HOUSING

The luminaire housing, cast of aluminum, cradles the refractor and provides an enclosure for the plug in electrical module. The nickel plated lamp grip socket and the three station incoming line terminal block are pre-wired to a five conductor receptacle for ease in connecting the electrical module. A slipfitter will accept a 3" high by 2 7/8" to 3 1/8" O.D. pole tenon.

### LUMINAIRE HOUSING / DOOR

Cast of aluminum, the housing / door is removable without the use of tools and is retained by a stainless steel aircraft cable. For units with an E.E.I.-N.E.M.A. twist lock photocell receptacle, the door contains an acrylic "window" to allow light to reach the cell.

### ELECTRICAL MODULE

The ballast components are mounted on a steel plate that is removable without the use of tools. A matching five conductor plug connects to the receptacle in the luminaire housing to complete the wiring. Where a starting aid is required, it is provided with a separate plug-in connector and can be replaced without the use of tools. For photoelectric operation, the electrical module is provided with an E.E.I.-N.E.M.A. twist lock photocell receptacle.

### TOP COVER

The octagonal cover, cast of aluminum, is attached to the top ring of the luminaire housing by a stainless steel piano hinge and latched by an overcenter, positive action, stainless steel latch which allows tool-less entry to the lamp chamber for relamping.

### BALLASTS

(Refer to the Ballast Handbook for specific operating characteristics)

50 watt 120 volt High Pressure Sodium (HPS) ballasts are High Power Factor Reactor type. All other HPS ballasts are High Power Factor Autotransformer type.

175 watt Metal Halide (MH) ballasts are Peak Lead Autotransformer type. 70 and 100 watt MH units are available only with High Power Factor High Reactance type ballasts.

All Mercury Vapor (MV) ballasts are High Power Factor Constant Wattage Autotransformer (CWA) type.

### FINISH

The luminaire is finished with polyester powder paint applied after a seven stage pretreatment process to insure maximum durability.

ARCHITECTURAL OUTDOOR ORDER #:

TYPE: B

DRAWING NO: US-2584

THIS DRAWING, WHEN APPROVED, SHALL BECOME THE COMPLETE SPECIFICATION FOR THE MATERIAL TO BE FURNISHED BY HOLOPHANE ON THE ORDER NOTED ABOVE. A UNIT OF SIMILAR DESIGN MAY BE SUPPLIED, BUT ONLY AFTER APPROVAL BY THE CUSTOMER IN WRITING. ON POLE ORDERS AN ANCHOR BOLT TEMPLATE PRINT WILL BE SUPPLIED WITH EACH ANCHOR BOLT ORDER TO MATCH THE POLE PROVIDED.

THIS PRINT IS THE PROPERTY OF HOLOPHANE AND IS LOANED SUBJECT TO RETURN UPON DEMAND AND UPON EXPRESS CONDITION THAT IT WILL NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO OUR INTERESTS, AND ONLY IN CONNECTION WITH MATERIAL FURNISHED BY HOLOPHANE.

**HOLOPHANE**  
LEADER IN LIGHTING SOLUTIONS

Holophane  
214 OAKWOOD AVENUE - NEWARK, OHIO 43055

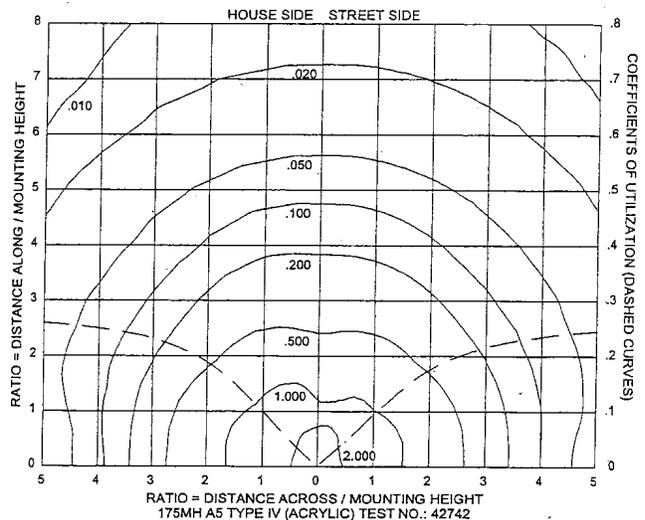
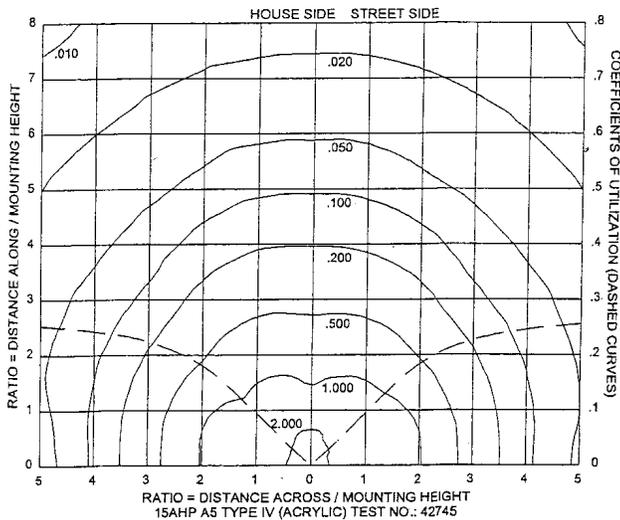
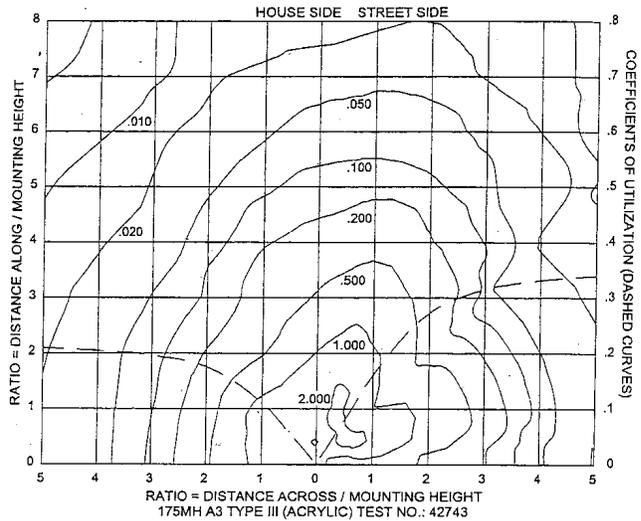
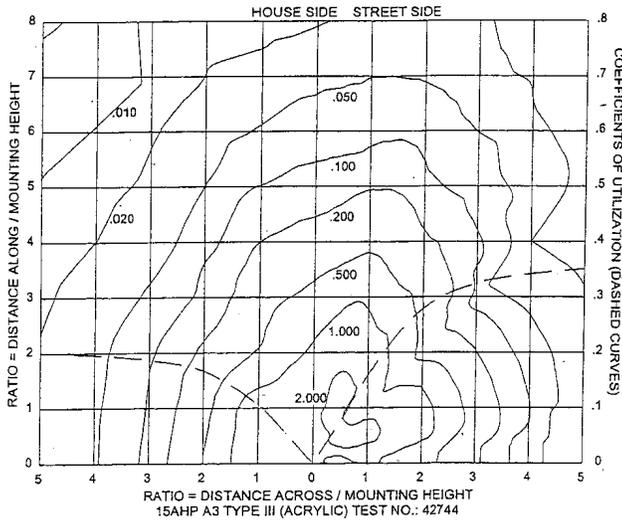
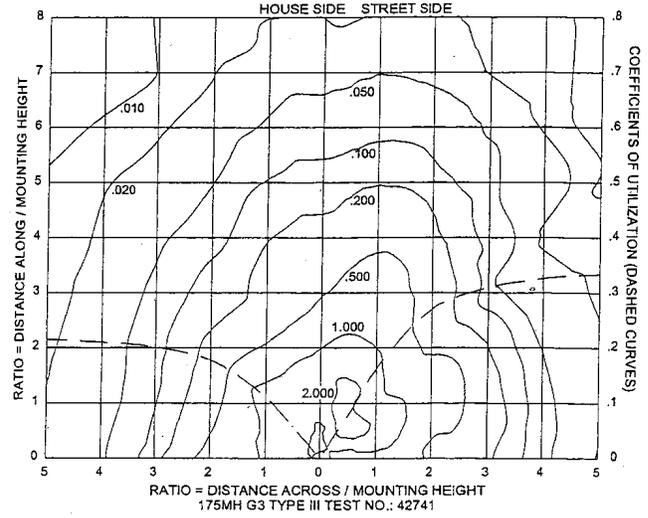
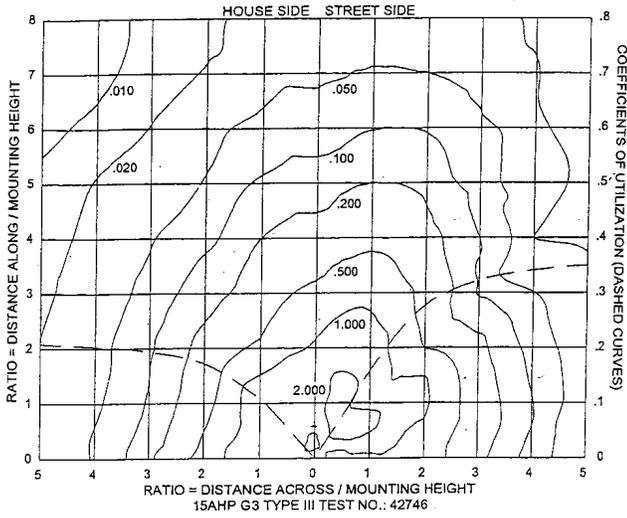
ARU-175MH-MT-C-Z-63

SCALE: N/A

DRAWN: RAF

APP'D:

DATE: 12-12-01



Holophane

214 OAKWOOD AVENUE - NEWARK, OHIO 43055

TYPICAL PHOTOMETRIC DATA  
(ISOFOOTCANDLE CHARTS AND  
COEFFICIENT OF UTILIZATION  
CURVES)

Isofootcandle data is based on a 15 foot mounting height. To determine values for mounting heights other than 15 feet, multiply the values for mounting heights following factors:

10' - 2.25	12' - 1.56	14' - 1.15
16' - 0.88	18' - 0.69	20' - 0.56
22' - 0.46	24' - 0.39	

**COMPOSITE  
TUFF-POLE**

Project: Village of Sister Bay Street Ltg  
 Fixture Type: B  
 Mfg: Shakespeare Composite Poles  
 Catalog #: AJ20-14.5-F-S-5

Jefferson Style, 20" Anchor Base and Direct Burial

THE HISTORICAL SERIES

*Jefferson*

Distinctive, classical beauty

Virtually maintenance free, durable fiberglass reinforced composite

One-piece construction

Smooth or fluted, tapered shafts

Standard or custom finishes and colors

Seven standard, 23 premium colors; architectural colors available

Gloss or semi-gloss finishes standard; custom finishes available

Mounting heights of 9.5, 12, or 14.5 feet; custom heights to 22 feet

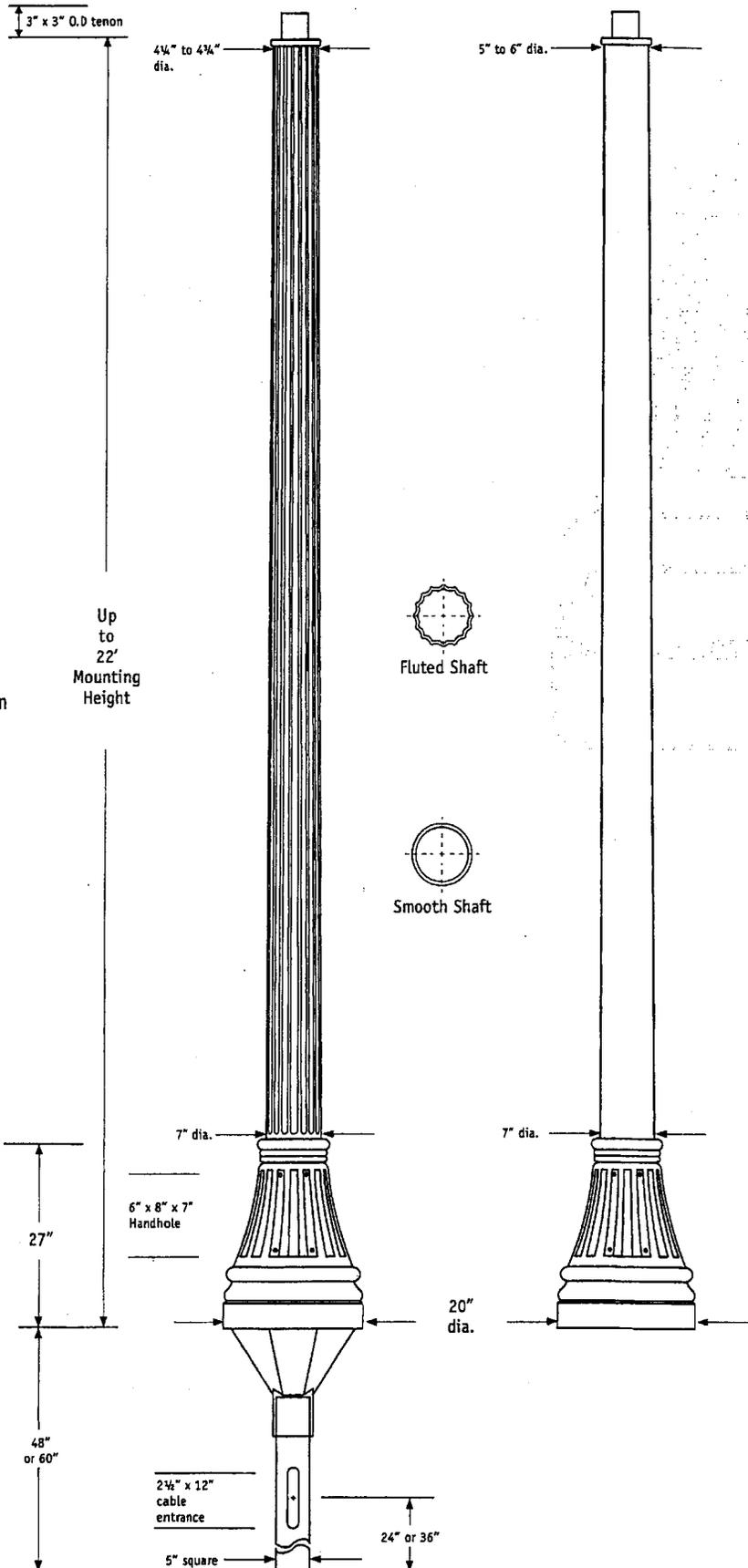
Superior wind, loading, and environmental tolerance

Non-conductive for safety

Molded-in color; UV and weather resistant polyurethane coating

Standard 3" x 3" dia. aluminum tenon for luminaire mounting

Anchor Base or Direct Burial

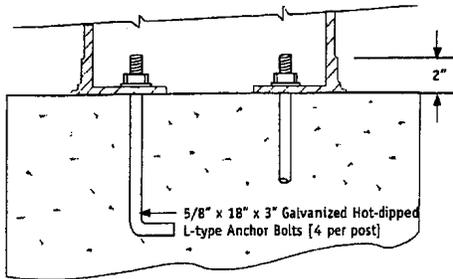


# AJ20 and BJ20

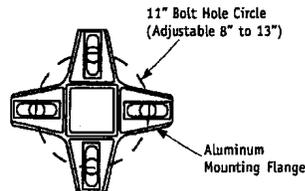
## Jefferson, 20" Anchor and Direct Burial Base

All dimensions and specifications nominal, and subject to change without notice or obligation. Please contact factory before site preparation begins.

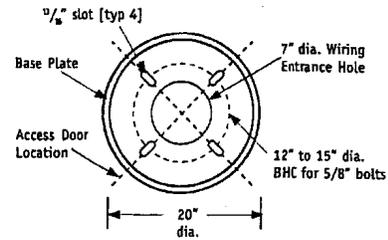
### Suggested Anchorage Detail (Anchor Base)



### Optional Composite Burial Foot



### Jefferson Anchor Bolt Pattern Detail



### OPTIONS

**3-Bolt Base** or optional **Bolt Circle**: contact factory.

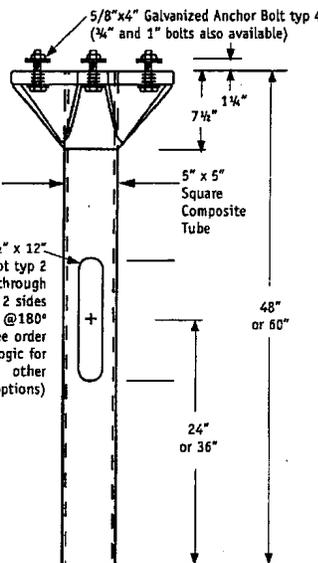
**Weatherproof receptacle** mounted 9" from top of pole, 90° clockwise from handhole: add "W1" to the catalog number.

**Weatherproof receptacle** mounted 18" from the top of the base on the shaft, 90° clockwise to the handhole: add "W2" to the catalog number. For other receptacle options, specify or contact factory.

**Banner arms, flag brackets, luminaires, and other attachments** are available. Contact factory.

**Decorative Twin Fixture Crossarm** (Catalog number A-30) add "A1" to pole catalog number. See Arms and Brackets brochure for other decorative twin arms.

Detachable **Composite Burial Foot** permits direct burial of foot prior to mounting. See Burial Foot brochure for specifications and catalog numbers.



### How to Specify

**Description:** The pole shaft and base (and internal mounting flange) shall all be molded of non-corroding fiberglass reinforced composite, pigmented throughout, and finished in the same color as specified. The (fluted) shafts shall be tapered and formed with 16 flutes separated by semi-flat ribs. The (smooth) shafts shall be filament wound with a smooth, tapered surface. The base shall be shaped similar to Shakespeare Composite Structures Jefferson Style AJ20 (anchor base) / BJ20 (direct burial).

**Dimensions:** The pole shall be 9.5, 12, or 14.5 feet mounting height (custom heights to 22') with a 20-inch diameter base. A 3" diameter by 3" high aluminum tenon shall be provided for luminaire mounting. (Direct Burial) The direct burial foundation shall be 48" (60") overall length and provided with a 2.5" x 12" conductor entrance centered 24" (36") from the bottom of the direct burial base (see order logic for other options). (Anchor Base) The internal mounting flange shall be provided with four 13/16" slots to accommodate 4 anchor bolts 5/8" x 18" x 3" in a 12" to 15" bolt circle.

**Construction:** The shaft shall be round with a uniform taper along the fluted (smooth) shaft. A handhole with a weather resistant cover shall be provided in the base for wiring access (if anchor base) and anchorage. The opening shall be no smaller than 6" wide at the top by 8" at the bottom by 7" high. The cover shall be made of fiberglass reinforced composite and shall bear the manufacturer's name. The cover shall be attached with 2 stainless steel flat countersunk hex socket head screws. Threaded inserts shall be incorporated in the pole base.

The (anchor base) mounting flange shall be molded in one piece of fiberglass reinforced composite with a minimum thickness of 1/2" and shall be permanently bonded flush to the bottom of the base. Each pole shall be finished with a (glossy / semi-gloss) weather resistant polyurethane having a minimum dry film thickness of 1.5 mils.

(Add "Performance and Testing Requirements" from Specification Data sheet.)

### EPA Rating

Jefferson style poles are engineered to withstand at least 100 mph wind forces (calculated per AASHTO standards and including a 30% gust factor), with luminaires up to 6.2 EPA (sq. ft.) weighing up to 150 pounds. For other loading requirements, contact factory.

### Catalog Numbers for Jefferson Style 20"

<b>Base Type</b> A=Anchor Base B=Direct Burial Style J=Jefferson	<b>Shaft Type</b> F=Fluted S=Smooth	<b>Color</b> 1=Black 2=Gray 3=Brown 4=Dk Green 5=Dk Bronze 6=Silver 7=White 9=Specify*	<b>Options</b> (See "Options" above)
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**AJ20 - 14.5 F S 5**

<b>Base Dia. (in.)</b> 20"	<b>Mounting Height (ft.)</b> 9.5, 12, 14.5, or custom up to 22	<b>Finish</b> G=Gloss S=Semi-gloss	<b>Direct Burial Conduit Entrance</b> (use "1" for Anchor Base) Location from bottom of pole																		
			<table border="1"> <tr> <td></td> <td>1 ea.</td> <td>2 ea.</td> </tr> <tr> <td>None</td> <td>1</td> <td>1</td> </tr> <tr> <td>12"</td> <td>2</td> <td>3</td> </tr> <tr> <td>18"</td> <td>4</td> <td>5</td> </tr> <tr> <td>24"</td> <td>6</td> <td>7</td> </tr> <tr> <td>Other (specify)</td> <td>0</td> <td>0</td> </tr> </table>		1 ea.	2 ea.	None	1	1	12"	2	3	18"	4	5	24"	6	7	Other (specify)	0	0
	1 ea.	2 ea.																			
None	1	1																			
12"	2	3																			
18"	4	5																			
24"	6	7																			
Other (specify)	0	0																			

\*Standard, premium, and architectural colors are available. See Tuff-Pole® Color Palette brochure.

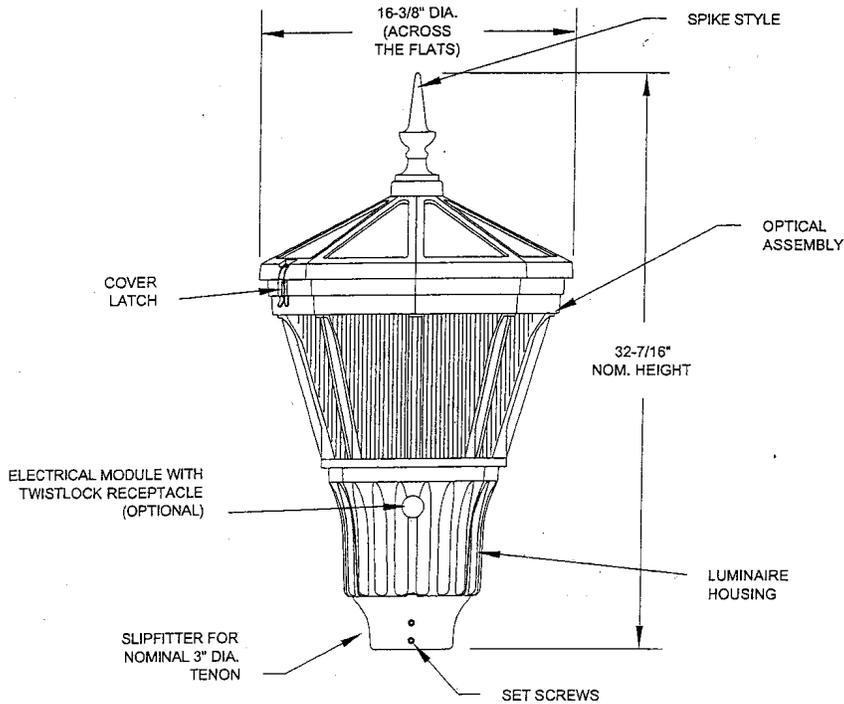


803.276.5504 • 800.800.9008 • F/803.276.8940  
 www.skp-cs.com • decorative@skp-cs.com

A Division of Genlyte Thomas Group, LLC

# Utility Arlington® Series Luminaire

Maximum weight - 47 lbs  
Maximum effective projected area - 1.38 sq. ft.



### ORDERING INFORMATION

EXAMPLE: ARU 050HP 12 B G3  
ARU 175MH MT C-2 63

**BALLAST TYPE (MOGUL BASE)**  
050HP = 50W HPS  
070HP = 70W HPS  
100HP = 100W HPS  
15AHP = 150W 55V HPS  
175MH = 175W MH  
100MV = 100W MV  
175MV = 175W MV  
250MV = 250W MV (G3 ONLY)

**VOLTAGE**  
12 = 120 VOLT  
20 = 208 VOLT  
24 = 240 VOLT  
27 = 277 VOLT  
34 = 347 VOLT (C.U.L.)  
48 = 480 VOLT  
MT = MULTITAP (120, 208, 240, 277 VOLT)

**COLOR**  
B = BLACK  
Z = BRONZE  
N = GREEN  
A = AS SPEC.

**OPTICS**  
G3 = ASYMMETRIC GLASS REFRACTOR  
A3 = ASYMMETRIC ACRYLIC REFRACTOR (not avail. w/250MV)  
A5 = SYMMETRIC ACRYLIC REFRACTOR (not avail. w/250MV)  
P3 = ASYMMETRIC POLYCARBONATE REFRACTOR (not avail. w/250MV)  
P5 = SYMMETRIC POLYCARBONATE REFRACTOR (not avail. w/250MV)

**BALLAST TYPE (MEDIUM BASE)**  
50DHP = 50W HPS  
70DHP = 70W HPS  
10DHP = 100W HPS  
15DHP = 150W 55V HPS  
70DMH = 70W MH (NOT AVAIL. W/ 480V)  
10DMH = 100W MH (NOT AVAIL. W/ 480V)  
15DMH = 150W MH (NOT AVAIL. W/ 480V)  
17DMH = 175W MH

**OPTIONS**  
C = IES CUTOFF  
P = PROTECTED STARTER FOR HPS UNITS ONLY  
H = NEMA TWISTLOCK PHOTOCONTROL RECEPTACLE (DOES NOT INCLUDE PHOTOCONTROL)  
T = BOTH NEMA TWISTLOCK RECEPTACLE AND PROTECTED STARTER TOGETHER (HPS UNITS ONLY)

**ACCESSORIES**  
LAMP = SHIP APPROPRIATE LAMP AS A LINE ITEM. SEE LAMP SHEET

## Specifications

### GENERAL DESCRIPTION

The Utility Arlington is designed for ease of maintenance with the plug-in electrical module common to each of the luminaires in Holophane's Utility Luminaire Series. A precision optical system maximizes post spacings while maintaining uniform illumination.

### OPTICAL SYSTEM

The optical system consists of a precisely molded refractor operating in conjunction with a formed anodized aluminum reflector located in the top cover. Positive pressure from three coiled springs backing the reflector and gaskets at the top and bottom of the refractor create a sealed optical compartment. Refractors designed to provide an I.E.S. Type III distribution are available molded from thermal resistant borosilicate glass and acrylic or polycarbonate plastic. Type V refractors are available in acrylic or polycarbonate only. An IES cutoff option is available.

### LUMINAIRE HOUSING

The luminaire housing, cast of aluminum, cradles the refractor and provides an enclosure for the plug in electrical module. The nickel plated lamp grip socket and the three station incoming line terminal block are pre-wired to a five conductor receptacle for ease in connecting the electrical module. A slipfitter will accept a 3" high by 2 7/8" to 3 1/8" O.D. pole tenon.

### LUMINAIRE HOUSING / DOOR

Cast of aluminum, the housing / door is removable without the use of tools and is retained by a stainless steel aircraft cable. For units with an E.E.I.-N.E.M.A. twist lock photocell receptacle, the door contains an acrylic "window" to allow light to reach the cell.

### ELECTRICAL MODULE

The ballast components are mounted on a steel plate that is removable without the use of tools. A matching five conductor plug connects to the receptacle in the luminaire housing to complete the wiring. Where a starting aid is required, it is provided with a separate plug-in connector and can be replaced without the use of tools. For photoelectric operation, the electrical module is provided with an E.E.I.-N.E.M.A. twist lock photocell receptacle.

### TOP COVER

The octagonal cover, cast of aluminum, is attached to the top ring of the luminaire housing by a stainless steel piano hinge and latched by an overcenter, positive action, stainless steel latch which allows tool-less entry to the lamp chamber for relamping.

### BALLASTS

(Refer to the Ballast Handbook for specific operating characteristics)  
50 watt 120 volt High Pressure Sodium (HPS) ballasts are High Power Factor Reactor type. All other HPS ballasts are High Power Factor Autotransformer type.  
175 watt Metal Halide (MH) ballasts are Peak Lead Autotransformer type. 70 and 100 watt MH units are available only with High Power Factor High Reactance type ballasts.

All Mercury Vapor (MV) ballasts are High Power Factor Constant Wattage Autotransformer (CWA) type.

### FINISH

The luminaire is finished with polyester powder paint applied after a seven stage pretreatment process to insure maximum durability.

ARCHITECTURAL OUTDOOR ORDER #:

TYPE: D

DRAWING NO: US-2584

THIS DRAWING, WHEN APPROVED, SHALL BECOME THE COMPLETE SPECIFICATION FOR THE MATERIAL TO BE FURNISHED BY HOLOPHANE ON THE ORDER NOTED ABOVE. A UNIT OF SIMILAR DESIGN MAY BE SUPPLIED, BUT ONLY AFTER APPROVAL BY THE CUSTOMER IN WRITING. ON POLE ORDERS AN ANCHOR BOLT TEMPLATE PRINT WILL BE SUPPLIED WITH EACH ANCHOR BOLT ORDER TO MATCH THE POLE PROVIDED.

THIS PRINT IS THE PROPERTY OF HOLOPHANE AND IS LOANED SUBJECT TO RETURN UPON DEMAND AND UPON EXPRESS CONDITION THAT IT WILL NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO OUR INTERESTS, AND ONLY IN CONNECTION WITH MATERIAL FURNISHED BY HOLOPHANE.

**HOLOPHANE**  
LEADER IN LIGHTING SOLUTIONS

Holophane

214 OAKWOOD AVENUE - NEWARK, OHIO 43055

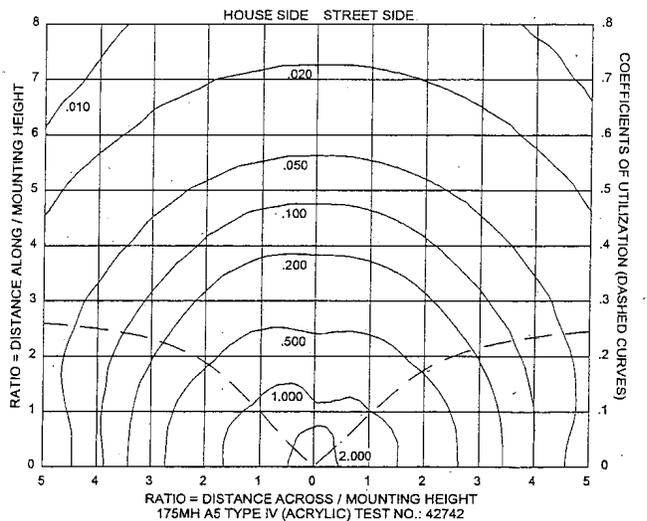
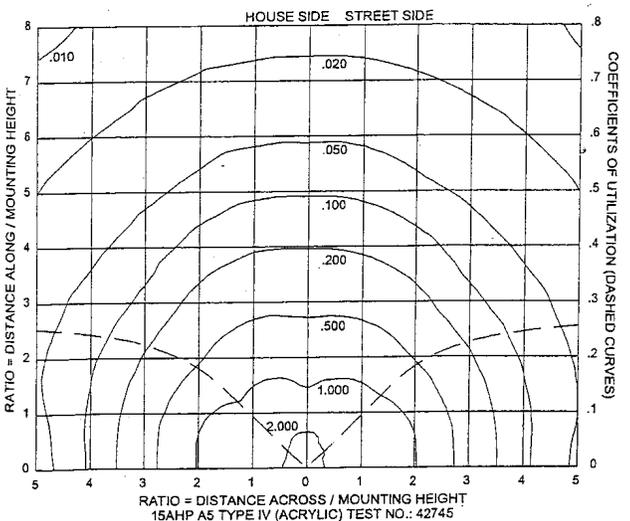
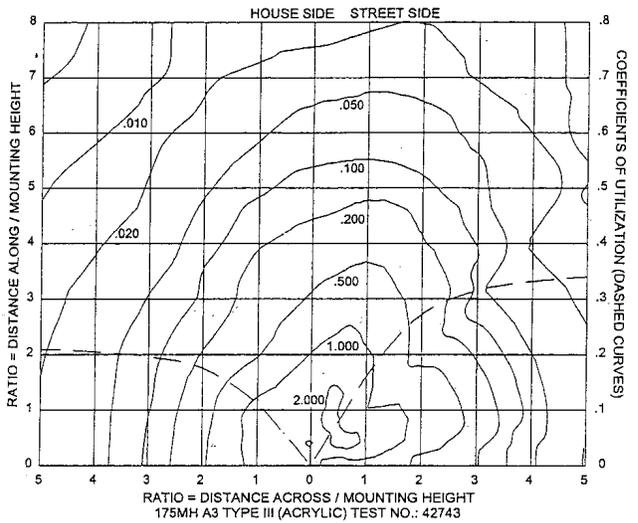
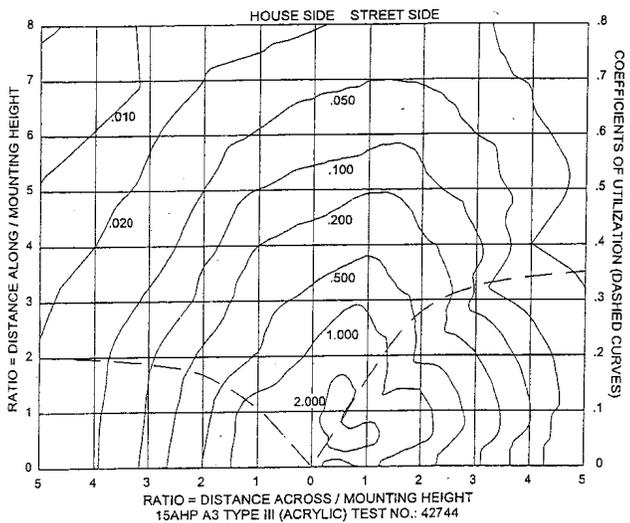
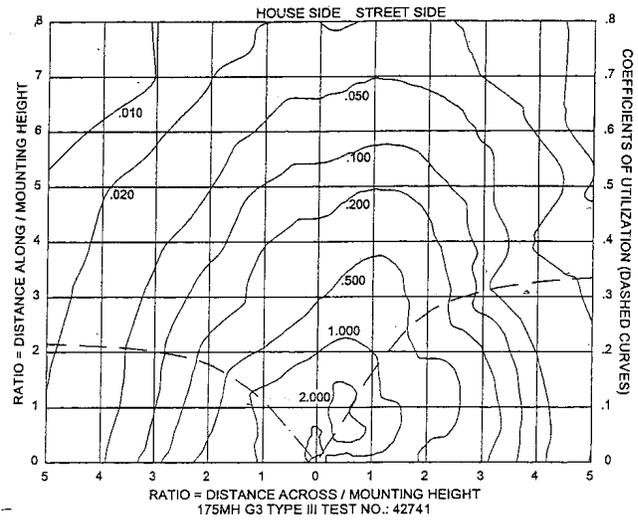
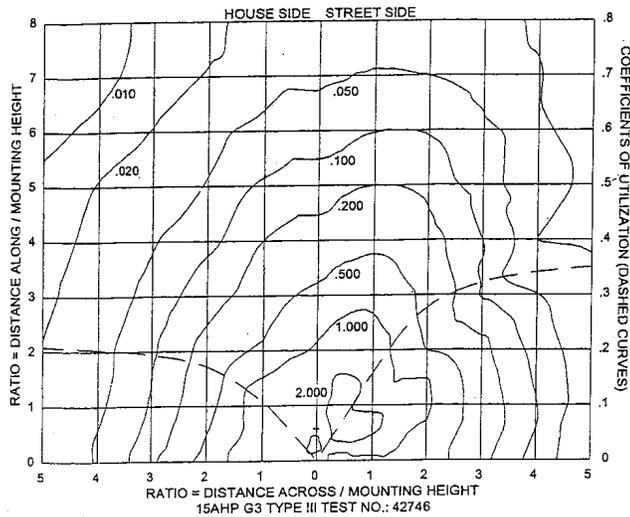
ARU-175MH-MT-C-2-63

SCALE: N/A

DRAWN: RAF

APP'D:

DATE: 12-12-01



Holophane

214 OAKWOOD AVENUE - NEWARK, OHIO 43055

TYPICAL PHOTOMETRIC DATA  
(ISOFOOTCANDLE CHARTS AND  
COEFFICIENT OF UTILIZATION  
CURVES)

Isofootcandle data is based on a 15 foot mounting height. To determine values for mounting heights other than 15 feet, multiply the values for mounting heights following factors:

10' - 2.25	12' - 1.56	14' - 1.15
16' - 0.88	18' - 0.69	20' - 0.56
22' - 0.46	24' - 0.39	

**COMPOSITE  
TUFF-POLE**

Project: Village of Sister Bay Street Ltg  
 Fixture Type: D  
 Mfg: Shakespeare Composite Poles  
 Catalog #: AJ20-14.5-F-S-5

Jefferson Style, 20" Anchor Base and Direct Burial

THE HISTORICAL SERIES

*Jefferson*

Distinctive, classical beauty

Virtually maintenance free, durable fiberglass reinforced composite

One-piece construction

Smooth or fluted, tapered shafts

Standard or custom finishes and colors

Seven standard, 23 premium colors; architectural colors available

Gloss or semi-gloss finishes standard; custom finishes available

Mounting heights of 9.5, 12, or 14.5 feet; custom heights to 22 feet

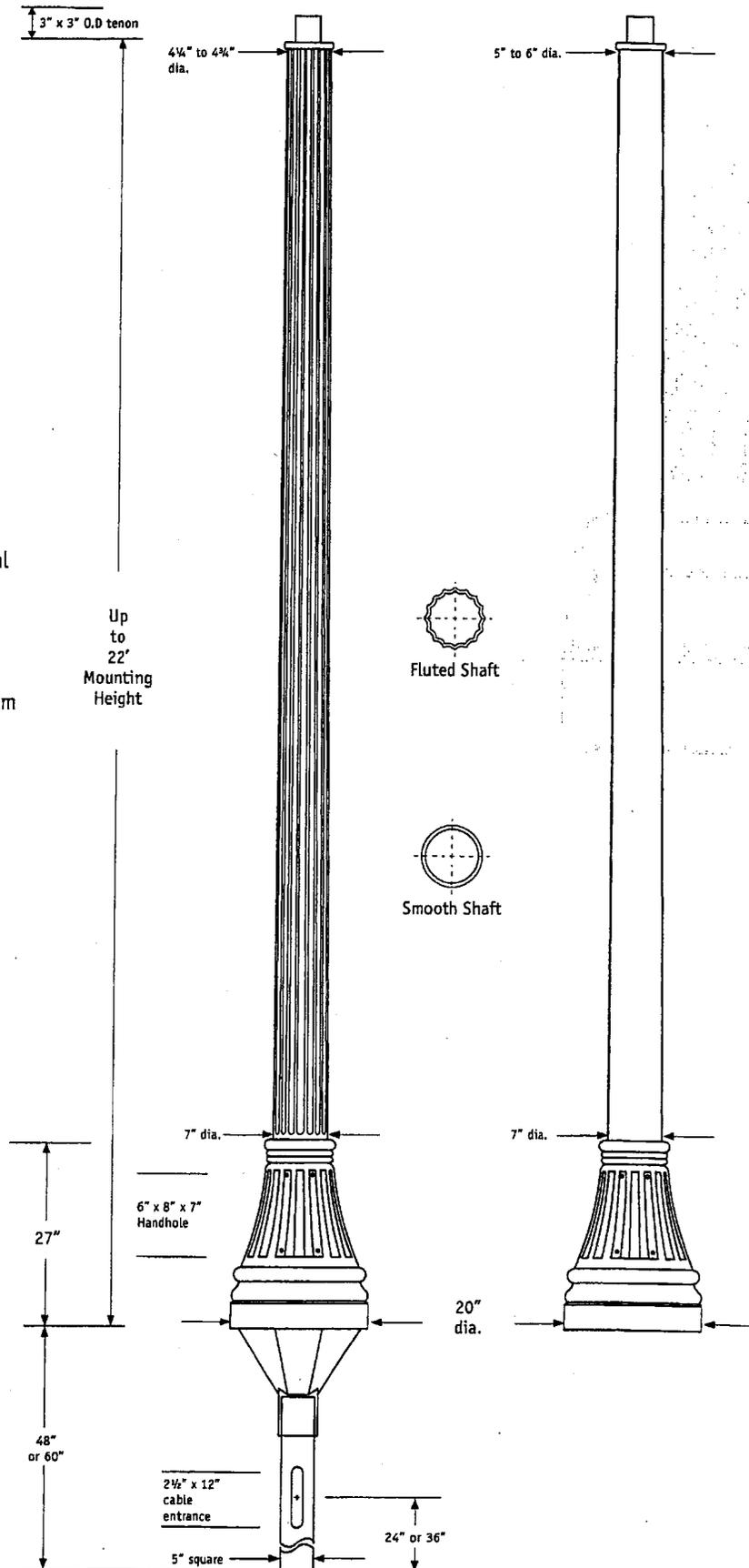
Superior wind, loading, and environmental tolerance

Non-conductive for safety

Molded-in color; UV and weather resistant polyurethane coating

Standard 3" x 3" dia. aluminum tenon for luminaire mounting

Anchor Base or Direct Burial



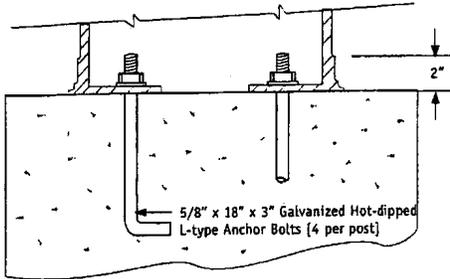
# AJ20 and BJ20

## Jefferson, 20" Anchor and Direct Burial Base

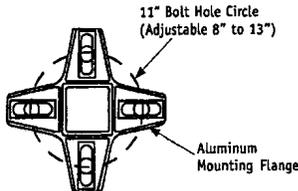
All dimensions and specifications nominal, and subject to change without notice or obligation. Please contact factory before site preparation begins.

Project: Village of Sister Bay Street Ltg  
 Fixture Type: D  
 Mfg: Shakespeare Composite Poles  
 Catalog #: AJ20-14.5-F-S

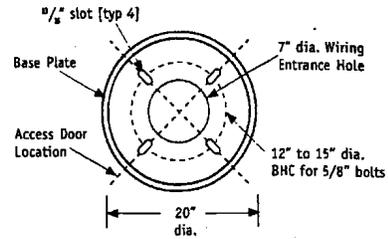
### Suggested Anchorage Detail (Anchor Base)



### Optional Composite Burial Foot



### Jefferson Anchor Bolt Pattern Detail



### OPTIONS

**3-Bolt Base or optional Bolt Circle:** contact factory.

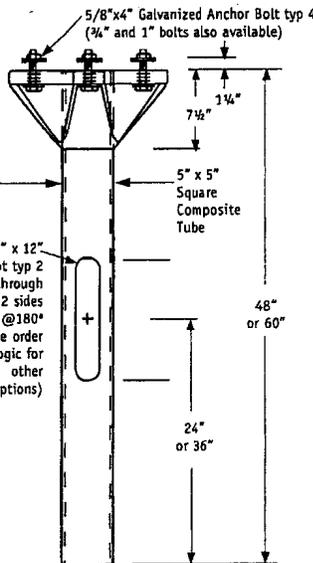
**Weatherproof receptacle** mounted 9" from top of pole, 90° clockwise from handhole: add "W1" to the catalog number.

**Weatherproof receptacle** mounted 18" from the top of the base on the shaft, 90° clockwise to the handhole: add "W2" to the catalog number. For other receptacle options, specify or contact factory.

**Banner arms, flag brackets, luminaires, and other attachments** are available. Contact factory.

**Decorative Twin Fixture Crossarm** (Catalog number A-30) add "A1" to pole catalog number. See Arms and Brackets brochure for other decorative twin arms.

**Detachable Composite Burial Foot** permits direct burial of foot prior to mounting. See Burial Foot brochure for specifications and catalog numbers.



### How to Specify

**Description:** The pole shaft and base (and internal mounting flange) shall all be molded of non-corroding fiberglass reinforced composite, pigmented throughout, and finished in the same color as specified. The (fluted) shafts shall be tapered and formed with 16 flutes separated by semi-flat ribs. The (smooth) shafts shall be filament wound with a smooth, tapered surface. The base shall be shaped similar to Shakespeare Composite Structures Jefferson Style AJ20 (anchor base) / BJ20 (direct burial).

**Dimensions:** The pole shall be 9.5, 12, or 14.5 feet mounting height (custom heights to 22") with a 20-inch diameter base. A 3" diameter by 3" high aluminum tenon shall be provided for luminaire foundation mounting. (Direct Burial) The direct burial foundation shall be 48" (60") overall length and provided with a 2.5" x 12" conductor entrance centered 24" (36") from the bottom of the direct burial base (see order logic for other options). (Anchor Base) The internal mounting flange shall be provided with four 13/16" slots to accommodate 4 anchor bolts 5/8" x 18" x 3" in a 12" to 15" bolt circle.

**Construction:** The shaft shall be round with a uniform taper along the fluted (smooth) shaft. A handhole with a weather resistant cover shall be provided in the base for wiring access (if anchor base) and anchorage. The opening shall be no smaller than 6" wide at the top by 8" at the bottom by 7" high. The cover shall be made of fiberglass reinforced composite and shall bear the manufacturer's name. The cover shall be attached with 2 stainless steel flat countersunk hex socket head screws. Threaded inserts shall be incorporated in the pole base.

The (anchor base) mounting flange shall be molded in one piece of fiberglass reinforced composite with a minimum thickness of 1/2" and shall be permanently bonded flush to the bottom of the base. Each pole shall be finished with a (glossy / semi-gloss) weather resistant polyurethane having a minimum dry film thickness of 1.5 mils.

(Add "Performance and Testing Requirements" from Specification Data sheet.)

### EPA Rating

Jefferson style poles are engineered to withstand at least 100 mph wind forces (calculated per AASHTO standards and including a 30% gust factor), with luminaires up to 6.2 EPA (sq. ft.) weighing up to 150 pounds. For other loading requirements, contact factory.

### Catalog Numbers for Jefferson Style 20"

<b>Base Type</b> A=Anchor Base B=Direct Burial Style J=Jefferson	<b>Shaft Type</b> F=Fluted S=Smooth	<b>Color</b> 1=Black 2=Gray 3=Brown 4=Dk Green 5=Dk Bronze 6=Silver 7=White 9=Specify*	<b>Options</b> (See "Options" above)																		
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<b>Base Dia. (in.)</b> 20"	<b>Mounting Height (ft.)</b> 9.5, 12, 14.5, or custom up to 22	<b>Finish</b> G=Gloss S=Semi-gloss	<b>Direct Burial Conduit Entrance</b> (use "1" for Anchor Base) Location from bottom of pole																		
		<table border="1"> <tr> <td></td> <td>1 ea. 2"x12"</td> <td>2 ea. 2"x12" @ 180°</td> </tr> <tr> <td>None</td> <td>1</td> <td>1</td> </tr> <tr> <td>12"</td> <td>2</td> <td>3</td> </tr> <tr> <td>18"</td> <td>4</td> <td>5</td> </tr> <tr> <td>24"</td> <td>6</td> <td>7</td> </tr> <tr> <td>Other (specify)</td> <td>0</td> <td>0</td> </tr> </table>			1 ea. 2"x12"	2 ea. 2"x12" @ 180°	None	1	1	12"	2	3	18"	4	5	24"	6	7	Other (specify)	0	0
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\*Standard, premium, and architectural colors are available. See Yuff-Pole® Color Palette brochure.



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