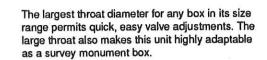
APPENDIX E

VALVE BOX

G5 Traffic ValveBox 10-3/8" I.D. x 12"





Locking 1' Grade Rings

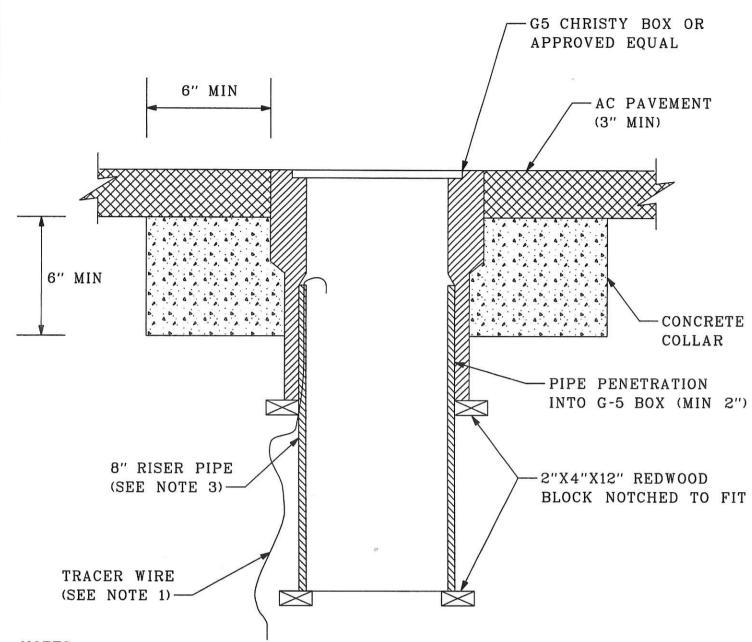
Throat Dia.

Unique locking grade rings assure permanence and quality of surface grades when streets are re-paved. Telescoping extensions facilitate installation at jobsite and act to isolate pipeline from road shock.

This valve box is specifically designed to meet modern day requirements. The carefully engineered iron lid and ring seat furnishes a complete unit reducing the danger of lid "pop-out" in heavy traffic areas. Vandal resistance is optional at extra cost by the addition of hold down screws. Approximate dimensions shown.

CHRISTY ORDERING		APPROX. SHIPPING	
CODE	ITEM	WEIGHT	DESCRIPTION
G5BOX	Box	61	G5 Traffic Valve Box (10-3/8" I.D. x 12" High)-36 Per Pallet
G5C	Lid	10	Cast Iron, Traffic
G5X12	Extension	29	12" Concrete—32 Per Pallet
G5XP8	Extension	1	ADS 8", Plastic
G5XP12	Extension	1	ADS 12", Plastic
F14XP120	Extension	11	ADS 10' Lengths, Plastic
G5GR10	Grade Ring	10	1" High, Cast Iron
G5GR15	Grade Ring	14	1-1/2" High, Cast Iron
G5GR20	Grade Ring	17	2" High, Cast Iron
			CALIFRAMA





NOTES:

- 1. AC PAVEMENT TO COMPLY WITH STREET PAVEMENT REQUIREMENTS
- 2. FOR VALVE BOXES INSTALLED IN NON TRAFFIC AREAS, CONCRETE COLLAR SHALL BE EXTENDED TO FINISH GRADE AND SLOPED TO DRAIN AWAY FROM LID.
- 3. RISER PIPE TO BE ONE CONTINIOUS PIECE, APPROVED PVC CLASS 150, 200 OR STEEL PIPE WITH A MIN 10 GA WALL THICKNESS
- 4. IF TRACER WIRE IS OF SUFFICIENT LENGTH RE-ROUTE AS SHOWN

VALVE BOX WITH CAST IRON TRAFFIC LID

APPENDIX F

STREET LIGHT POLE & LUMINAIRE ASSEMBLY

Lafayette City Mt Diablo Blvd Relighting (29950)

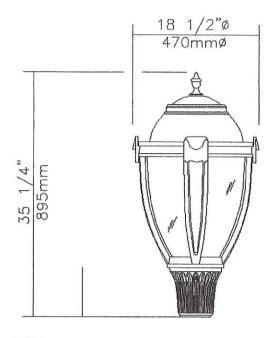














EPA: 1.76 sq ft / weight: 45 lb (20.45 kg)

Note: 3D image may not represent color or option selected.

Logos above include link, click to access.



Qty

Luminaire L80-90W49LED4K-ES-[AC-001]-CS-LE3-240-[SF4-002]-FN2-PH7-BKTX

Description of Components:

Finial: Decorative cast 356 aluminum, mechanically assembled.

Hood: A spun aluminum dome, mechanically assembled to the cast aluminum heat sink.

Guard: In a round shape with 4 arms, this guard is a one-piece cast 356 aluminum mechanically assembled to the fitter.

Access-Mechanism: A gravity die cast 356 aluminum frame with latch and hinge. The mechanism shall offer toolfree access to the inside of the luminaire. An embedded memory-retentive gasket shall ensure weatherproofing.

Globe: (AC-CS), Made of one-piece seamless injected-molded satin clear acrylic. The globe is assembled on the access-mechanism. Inside of globe is lightly glassblasted to diffuse light.

Lamp: (Included), Lamp type Philips Lumileds Rebel ES. Composed of 49 high-performance white LEDs, 90w lamp wattage. Color temperature of 4000 Kelvin nominal, 70 CRI. Operating lifespan after which the system emits 70% of its original lumen output, all of those parameters are tested for 100% of light engines. Use of a metal core board insures greater heat transfer and longer lifespan of the light engine.

Optical System: (LE3), I.E.S type III (asymmetrical). Composed of high-performance acrylic collimators, optimized with varying beam angles to achieve desired distribution. Performance shall be tested per LM63 and LM79 (IESNA) certifying its photometric performance. Street-side indicated.

Heat Sink: Made of cast aluminum optimising the LEDs efficiency and life. Product does not use any cooling device with moving parts (only passive cooling device)



Lafayette City Mt Diablo Blvd Relighting (29950)

Driver: High power factor of 90%. Electronic driver, operating range 50-60 Hz. **Auto-adjusting to a voltage between 120 and 277 volt AC rated for both application line to line or line to neutral, Class II**, THD of 20% max. Maximum ambient operating temperature from -40F(-40C) to 130F(55C) degrees. Certified in compliance to cULus requirement. Weather tightness rating IP66. Assembled on a unitized removable tray with Tyco quick disconnect plug resisting to 221F(105C) degrees.

The current supplying the LEDs will be reduced by the driver if the internal temperature exceeds 185F(85C), as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction.

Surge Protector: LED Driver 3 poles 10KV surge Protectors that protect Line-Ground, Line-Neutral, and Neutral-Ground in accordance with IEEE / ANSI C62.41.2 guidelines.

Fitter: (SF4-002), Cast 356 aluminum c/w 4 set screws 3/8-16 UNC. Slip-fits on a 3"(76mm) outside diameter x 3" (76mm) long tenon.

Luminaire Options: (PH7), Photoelectric Cell, Button Type

Lafayette City Mt Diablo Blvd Relighting (29950)

Miscellaneous

Description of Components:

Wiring: Gauge (#14) TEW/AWM 1015 or 1230 wires, 6" (152mm) minimum exceeding from luminaire.

Hardware: All exposed screws shall be stainless steel with Ceramic primer-seal basecoat to reduce seizing of the parts. All seals and sealing devices are made and/or lined with EPDM and/or silicone.

Finish: Color to be **black textured (BKTX)**. Application of a polyester powder coat paint. (4 mils/100 microns). The chemical composition provides a highly durable UV and salt spray resistant finish in accordance to the ASTM-B117-03 standard and humidity proof in accordance to the ASTM-D2247-68 standard.

Quality Control: The manufacturer must provide a written confirmation of its ISO 9001-2008 and ISO 14001-2004 International Quality Standards Certification.

Certification: The manufacturer will have to supply a copy of approval products certificate, CSA or UL.

Web site information details: Click on any specific information details you need:

Paint finish / Warranties / Installation pictures / Driver Spécification / ISO 9001-2008 Certification / ISO 9001-2008 Certification / ISO 9001-2008 Certification / ISO 14001-2004 Certification / CULus Certification

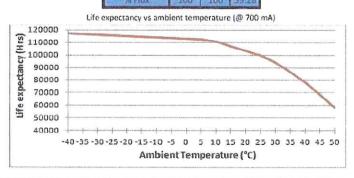
		LED = Philips	nical info Lumileds Rebe life = 100,000 l	ES, CRI = 7	70, CCT = 41	000K (+/- 3	50K)		
Lamp	Typical delivered lumens ²	Typical lamp wattage (W)	Typical system wattage ³ (W)	Typical current @ 120 V (A)	Typical current @ 240 V (A)	Typical current @ 277 V (A)	LED current (mA)	HPS equivalent 4	Luminaire Efficacy Rating (Lm/W)
40W49LED4K-ES	3100	42	47	0.39	0.20	0.17	285	70 W	66
65W49LED4K-ES	4185	65	72	0.60	0.30	0.26	428	100 W	58
90W49LED4K-ES	4970	90	102	0.85	0.43	0.37	571	150 W	49

1 L70 = 100,000 hrs (at ambient temperature = 25°C and forward current = 700 mA)
2 May vary depending on the optical distribution used
3 System wartage includes the lamp and the LED driver

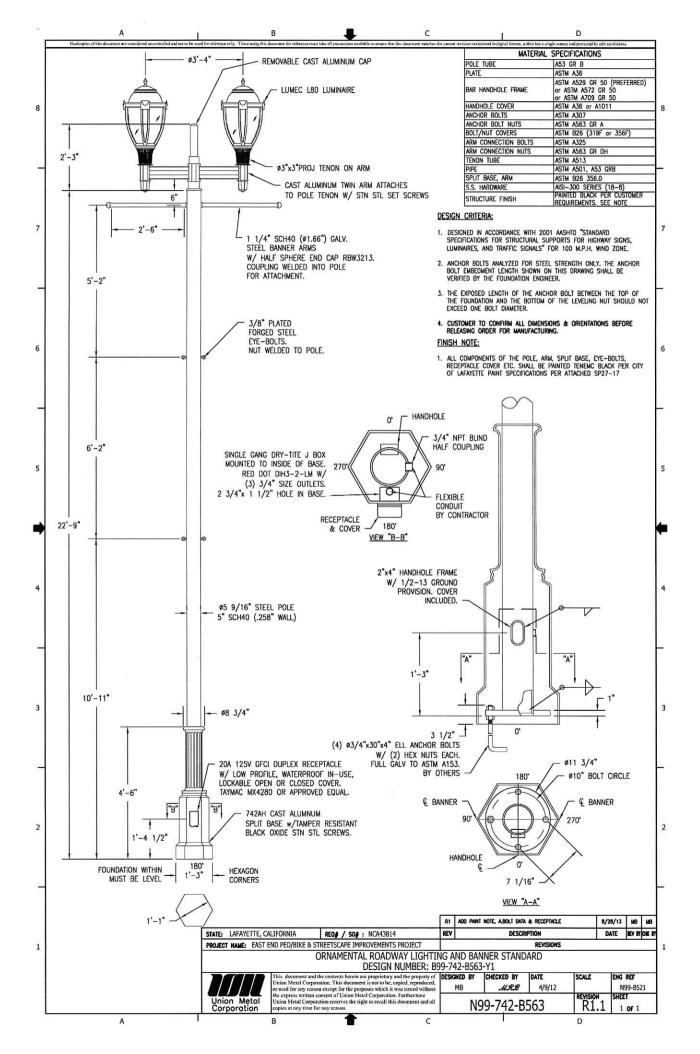
Photometric tests are done at 25°C ambient (as requested by LM-79). If our product is used at a different ambient temperature (nightime average), you can multiply the lumens by the percentage below.

Ambient ('C)	220	-10	0	155	100	15	20	25
% Flux	105.8	105.1	104.2	103.8	102.8	101.9	101	100

As 4000K is our standard, photometric tests are only done with this CCT. If you want to use another CCT (6000K or 3000K) you can multiply the lumens by the percentage below



Note: Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of Philips.



APPENDIX G

SIGN POST & ACCESSORIES



by Ulti-Mate

0

No Deforming of Anchor during Installation

No need to match Anchors and Sleeves

Solid section below ground provides additional strength

 Two Piece Welded Design provides almost a full 1/4" top edge

Quicker Easier Installation

Perfect Hole Alignment

2" x 2" Sign Post

3/8" Steel Drive Rivet or Corner bolt

2 1/2" x 2 1/2" x 12 GA. Sleeve Punched 6 or 12 Holes

2 1/4" x 2 1/4" x 12 GA. **Penetrator**® Anchor

Punched 6 or 12 Holes

For your closest authorized distributor call: Ultimate Highway Sales @ 800.730.4939



www.primus-group.com ncalvi@comcast.net

Fillet Weld All Around

Patented **Penetrator**® End Cut

STREET SIGNS

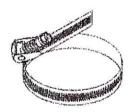
MOUNTING COMPONENTS FOR BLADE SIGNS (EXTRUDED & FLAT) Configuration: Configuration: Configuration: End Mounted Single Top of Pole Four-Way Top of Pole Configuration includes nut and both set to hold sign in bracket Sign to Sign Birch Sim Breschest Mounting Strop Biorde Eign (Some Scertype Recommended Post Coo Blade Slan (See list below) Post Cup See note below for End Mount Brocket (See chaif bolow) composite šee ha for below Any lybe of for compatible post up to 9" width Configuration includes set Configuration includes ser screws to hold sign in Sign fully assembled on post screws to hold signs in Sign fully assembled Sign fully assembled bracket and bracket onto post brocket and brocket onto post.



END MOUNT BRACKET

Blade street slans can be held on their ends with this bracket.

EMB-6 for AX-6 or AF-6 signs EMB-6.75 for AX-6.75 or AF-6.75 signs EMB-9 for AX-9 or AF-9 signs



MOUNTING STRAP

Stainless Steel Strap/Clamp inexpensive and convenient for mounting sign brackets and other uses. With a length of 32 inches. the ciamp can accommodate poles up to 9 inches wide.

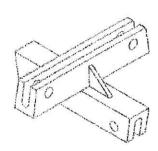
Pite 2-1/2" ID Diameter Post

707X-2.5 for AX-6 or AX-6.75

604F-2.5 for AF-6 or AF-6.75 signs

808X-2.5 for AX-9 sions

808F-2.5 for AF-9 signs



SIGN TO SIGN BRACKET

Bracket allows two blade signs to be stack on top of one another.

707XC\$ for AX-6 or AX-6.75 slans 808XCS for AX-9 signs 606FCS for AF-6 of AF-6.75 signs 808FCS for AF-9 signs





Cylindrical Past Cons

Fils 2" ID Diameter Post 707X-2 for AX-6 or AX-6.75 808X-2 for AX-9 sloris 606F-2 for AF-6 or AF-6,75 signs

808F-2 for AF-9 signs

Fits Square Tube Post 350X for AX-6, AX-6.75 or AX-9 signs

Square Post Cop

U-Channel Post Cap

850F for AF-6, AF-6.75 or AF-9 slons

Fits V-Channel Post 707XU for AX-6 or AX-6.75 signs 808XU for AX-9 signs 606FU for AF-6 of AF-6.75 signs 808FU for AF-9 signs

Other post caps are avaliable. Please cail us to confirm inventory.



WESTERN HIGHWAY PRODUCTS

10650 FERN AVENUE . STANTON, CA 90680 . FAX 714 952-2118

CALL 714 761-4811 OR 800 479-3783

(WITHIN CALIFORNIAL



SIGN MOUNTING HARDWARE



H1-SL STRAP-ON BRACKET

(Straight Leg) Extra Heavy 1/8" Steel, Hot dipped galv. with 5/16" tapped hole. Slotted for 3/4" Strap. Mounting Bolt not included

STAINLESS STEEL BRACKET Includes Mounting Bolt.



SEAL-TITE BOLT 5/16" X 1/2" bolt with Neoprene washer for mounting Signs with tapped brackets or pipe.



H2-FL

STRAP-ON BRACKET

(Flared Leg) For banding to large poles. Extra Heavy 1/8" Steel, Hot dipped galv. with 5/16" tapped hole. Slotted for 3/4" Strap.

H2-FLSS

STAINLESS STEEL BRACKET Includes Mounting Bolt.



H6-TPBKEY KEY WRENCH For tamper proof

RACKET DRIVER For tamper proof bolt.

TAMPER PROOF BOLT 5/16" X 1/2" special spanner head bolt.
Use same as H6-STB bolt



H3-CLB STRAP-ON BRACKET CANTILEVER

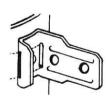
Heavy Gauge Aluminum Use one for each sign hole. For mounting double face Signs - slotted for 3/4" strap and punched for 5/16" bolts.



H6-VGNG For Galv. Bolt

H6-VGNP For Plated Bolt VANDLGARD-NUT Tamper Proof Nut

for Sign Mounting Call Western Highway for information on this unique, easily installed nut that cuts sign losses.



H4-D-007

STRAP-ON L-MOUNT BRKT. Stainless Steel

Double holes for mounting long signs. May be used back to back in pairs for extra rigid cantilever mounting. Slotted for 3/4" Strap.



H6-2.5 BG 2 1/2" - Galv.

H6-2.5 BP 2 1/2" - Plated

BUTTON THEFT PROOF BOLT When this button head bolt is used with nut H6-VGN above, theft is almost impossible. 5/16" Diameter. Available in both galvanized and



H6-4.5 CB 4 1/2"

Plated Carriage Bolt includes adaptor washer. Washer can be sold as seperate item.



BOLT-ON SPACER Galv. Channel Iron

1 1/2" x 1 1/2" x 1/8" Provides flat mounting surface when bolting sign to any size pipe to prevent wobble.



H6-23

SIGN MTG. HDWR. For U Channel Posts.

Aluminum spacer 3 1/2" x 2 1/2". 5/16" x 2 1/2" Bolt, Washer and Nut.



GUIDE PLATE MTG. HDWR. 1/4 X 1/2" Bolt, Washer and Lock Nut (6 sets reqd. per Guide Marker).

SIGN MOUNTING HARDWARE



HWSSC

STAINLESS STEEL-CLAMP Inexpensive and convenient for mounting sign brackets and other uses. 32" long fits 2" to 9" diameter pipe pole.



H9-2.5

CLAMP ON U-BRACKETS

(Single Bracket) Includes steel zinc coated U bolt with nuts and cast aluminum bracket. Sign fastening bolt not included.

(Use H6-STB or H6-TP) Fits 2" and 2 1/2" I.D. standard pipe, eliminates strapping or drilling holes.



H10-1 (3/16 x 1 x 36") SIGN BRACE (Galv.)

To fit 4 x 4 posts.

H10-2 (3/16 x 1 x 37 1/4")
To fit 4 x 6 posts.
H10-4.5HG

HEX HEAD BRACE BOLT 5/16" x 4 1/2" Includes nut & washer. H10-6.5HG

5/16" x 6 1/2" Includes nut & washer.

H10-8.5HG

HEX HEAD BRACE BOLT



H11-C203 3/8" H11-C204 1/2"

H11-C205 5/8"

H11-C206 3/4"

HEAVY DUTY BANDING TAPE

.030 Stainless Steel 100 Ft. Roll.



H16-C253 3/8"

H16-C254 1/2"

H16-C255 5/8"

H16-C256 3/4"

HEAVY DUTY

BUCKLES Stainless Steel 100 per Box.



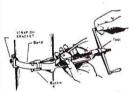
3/4" STRAPPING TAPE .015 Stainless Steel 200 Ft. Roll.

3/4" STRAPPING TAPE .020 Stainless Steel 200 Ft Boll



H14-C156

VALUE CLIP 100 per Box.



H18-C001

BANDING TOOL For use with any size Banding or Strapping Tape.





For self-setting rivets. Complete with 4 size Heads - 3/32, 1/8, 5/32, 3/16.

H20-AB66A 3/16" SELF-SETTING RIVETS For fastening C.M. Refl. Buttons with Hand Plier. 100 per Box.

H20-18 1/4" x 7/8" POP RIVET 100 per Box.



H20-26 CHERRY-MATE FASTENER 1/4" X 1 3/8" POP RIVETS
A convenient way to mount signs on the H21-SP sign posts.
100 per Box.

H20-316 3/16" x 9/16" DRIVE RIVETS For fastening C.M. Refl. Buttons

H20-38 3/8" x 1/2" For sign mounting, 100 per box.

SIGN POST

DELINEATOR POSTS HOT DIPPED GALVANIZED OR BAKED ENAMEL 6 ft

> 1.12 #/ft 30 - 3/8" holes on 1" centers. Light weight but strong. Ideal for Delineators, or marking utility lines.

5 ft., 6 ft. GUIDE POSTS (FOR MTG. TARGET PLATES)

H21-GP

40 Inch (for mtg.Type "K" Plates) California Spec. Flanges slotted ends pointed.

PIPE POST

H21-RP2.5-12 H21-RP2 H21-RP2.5

GALVANIZED STEEL PIPE POSTS Schedule 40 steel pipe 2 inch and 2 1/2 inch I.D. 10 1/2 ft. and 12 ft. long. IN STOCK

"U" CHANNEL POSTS HOT DIPPED GALVANIZED OR BAKED ENAMEL GREEN

SIGN POSTS

8 ft. 10 ft. 12 ft. 9 ft. 11 ft.

2 lb. per foot

(Other lengths on special order) Hot rolled, high carbon, rall steel. 3/8" holes punched on 1" centers, full length. Bottom pointed. High carbon steel is recommended because it resist bending. Meets & exceeds California State specifications.

Ulti-Mate The Ultimate Sign Support System

. . .

DIRECT INSTALLATION

The Ulti-mate sign post can be installed directly into the ground using power equipment or a sledgehammer with drive cap.



INSTALLATION

The Ulti-mate 12 gage anchor system allows crews to work at ground level for fast installations and replacements. The Ulti-mate anchor is installed directly into the ground, leaving 1 or 2 holes above grade level. The Ulti-mate sign post slides into the anchor for safe and easy installations.



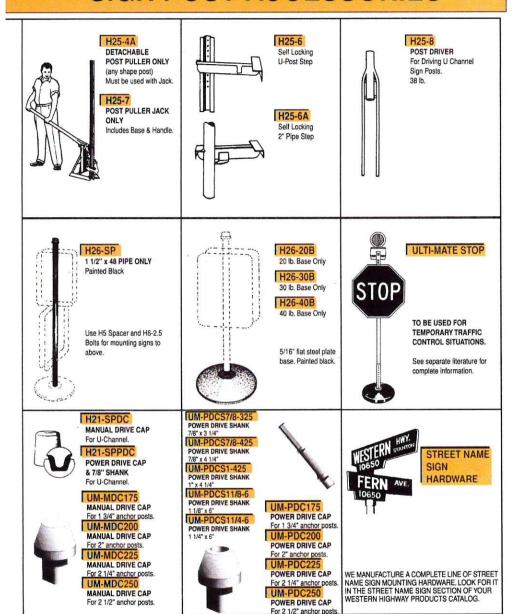
HI-IMPACT INSTALLATION

The Ulti-mate double 12 gage system is for areas that require frequent replacements due to damaged sign posts. This unique method utilizes a two-piece breakaway anchor that makes replacement work fast and safe.

	Eng	lish		Metric			
	Wall T	hickness	Pounds	1 [Wall Thickness	Kilograms	
Tube Size	Gage	Inches	Per Foot	Tube Size	(mm)	Per Meter	
1.75 x 1.75	14	0.083	1.71	44.45 x 44.45	2.10	2.54	
2.00 x 2.00	14	0.083	1.99	50.80 x 50.80	2.10	2.96	
2.25 x 2.25	14	0.083	2.28	57.15 x 57.15	2.10	3.39	
1.50 x 1.50	12	0.105	1.74	38.10 x 38.10	2.66	2.59	
1.75 x 1.75	12	0.105	2.09	44.45 x 44.45	2.66	3.11	
2.00 x 2.00	12	0.105	2.44	50.80 x 50.80	2.66	3.63	
2.25 x 2.25	12	0.105	2.79	57.15 x 57.15	2.66	4.16	
2.50 x 2.50	12	0.105	3.14	63.50 x 63.50	2.66	4.69	

See Separate Literature

SIGN POST ACCESSORIES



APPENDIX H

PROJECT IDENTIFICATION/FUNDING SIGN





Your MEASURE J Tax Dollars At Work

Start	Date:	-	
End	Date:		·

Contractor Name & Phone No.

EAST END PED/BIKE & STREETSCAPE IMPROVEMENTS

4'x 4'