

A-1 BLDG & B ONLY

R7411-277-SW-FF38 R9a

Directional
70-100-150W PAR-38 Metal Halide
7 1/4" Conoid Aperture

Optics and Applications
For medium beam PAR lamps with beam spreads from 20° to 65°. Use in open bottom fixtures without a lamp shield. Use as an HID directional to highlight display objects or for straight downlighting in sloped ceilings.

Design Features
The lamp-reflector assembly rotates 360° and tilts 45°. It can be locked in any selected position. The mechanism features quick movement for gross adjustments, then precise fine adjustments are made by an insulated threaded turboclock. Aiming time is minimal and aiming accuracy is unparalleled. Components move smoothly and easily. The cone moves with the tilt assembly to insure proper orientation. Aim or relamp from above or below.

Finish
A specular clear Alzak reflector is standard. Optional colors and Solglow® finishes are available. Use white instead of gold to avoid greenish tint with HID. Structural parts are painted optical matte black to suppress stray light leaks.

Ballast
Type HX, high power factor, 120V or 277V dual taps. Enclosed and potted, thermally protected with automatic reset. Temperature -20° F to 105° F. Mounted on a plate with 3" flex. Replace failed lamps immediately to preserve ballast life. Ballast release for service in inaccessible ceilings. Removable through the aperture for service.

General
Fixtures are pre-wired, thermally protected and UL listed for eight wire 70° C branch circuit pull-through wiring. All products are union made IBEW.

Accessories
For specular bronze cone add Z to catalog number. For specular pewter cone add Y to catalog number. For Solglow® clear cone add SC to catalog number. For Solglow® bronze cone add SZ to catalog number. For Solglow® pewter cone add SW to catalog number. For Solglow® wheel cone add SW to catalog number. For 20° support rails add R2 to catalog number. For 52° support rails add R5 to catalog number. For ballast base add F1 to catalog number. For damp label add DL to catalog number. For instant restrike Auto-On sensing system add AO to catalog number. Includes electronic control and emergency mini-can lamp socket. Instantaneous for initial start and lamp outage. Turns off when metal halide lamp means normal output. Maximum 60 watts. For mini-can 60W tungsten emergency lamp add TL to catalog number. For standard emergency circuit consisting of mini-can socket and leads only add EC to catalog number. For sloped ceilings from 45° specify R7411, page R9a.

Dimensions and Lamps

Number	A	B	C	D	Lamps
R7411	12 1/2"	7 1/4"	4 1/2"	2 1/2"	70-100-150W PAR-38
	311mm	184mm	114mm	64mm	

*To specify add voltage to number for proper ballast, e.g. R7411-277

Matching Units
Vertical Lamp Downlight Page R2
Horizontal Lamp Downlight Page R5

kurt versen
Kurt Versen Company Paint Source Lighting
Westwood, New Jersey 07075

A-2 BLDG & B ONLY

R7411-277-SW R9a

Directional
70-100-150W PAR-38 Metal Halide
7 1/4" Conoid Aperture

Optics and Applications
For medium beam PAR lamps with beam spreads from 20° to 65°. Use in open bottom fixtures without a lamp shield. Use as an HID directional to highlight display objects or for straight downlighting in sloped ceilings.

Design Features
The lamp-reflector assembly rotates 360° and tilts 45°. It can be locked in any selected position. The mechanism features quick movement for gross adjustments, then precise fine adjustments are made by an insulated threaded turboclock. Aiming time is minimal and aiming accuracy is unparalleled. Components move smoothly and easily. The cone moves with the tilt assembly to insure proper orientation. Aim or relamp from above or below.

Finish
A specular clear Alzak reflector is standard. Optional colors and Solglow® finishes are available. Use white instead of gold to avoid greenish tint with HID. Structural parts are painted optical matte black to suppress stray light leaks.

Ballast
Type HX, high power factor, 120V or 277V dual taps. Enclosed and potted, thermally protected with automatic reset. Temperature -20° F to 105° F. Mounted on a plate with 3" flex. Replace failed lamps immediately to preserve ballast life. Ballast release for service in inaccessible ceilings. Removable through the aperture for service.

General
Fixtures are pre-wired, thermally protected and UL listed for eight wire 70° C branch circuit pull-through wiring. All products are union made IBEW.

Accessories
For specular bronze cone add Z to catalog number. For specular pewter cone add Y to catalog number. For Solglow® clear cone add SC to catalog number. For Solglow® bronze cone add SZ to catalog number. For Solglow® pewter cone add SW to catalog number. For Solglow® wheel cone add SW to catalog number. For 20° support rails add R2 to catalog number. For 52° support rails add R5 to catalog number. For ballast base add F1 to catalog number. For damp label add DL to catalog number. For instant restrike Auto-On sensing system add AO to catalog number. Includes electronic control and emergency mini-can lamp socket. Instantaneous for initial start and lamp outage. Turns off when metal halide lamp means normal output. Maximum 60 watts. For mini-can 60W tungsten emergency lamp add TL to catalog number. For standard emergency circuit consisting of mini-can socket and leads only add EC to catalog number. For sloped ceilings from 45° specify R7411, page R9a.

Dimensions and Lamps

Number	A	B	C	D	Lamps
R7411	12 1/2"	7 1/4"	4 1/2"	2 1/2"	70-100-150W PAR-38
	311mm	184mm	114mm	64mm	

*To specify add voltage to number for proper ballast, e.g. R7411-277

Matching Units
Vertical Lamp Downlight Page R2
Horizontal Lamp Downlight Page R5

kurt versen
Kurt Versen Company Paint Source Lighting
Westwood, New Jersey 07075

RETAIL BLDGS & HARDSCAPE

H1497/1493P/L21

A-4 HALO

DESCRIPTION
The H1497 is a small aperture low voltage housing for providing accent and task lighting.

APPLICATION
The H1497 is designed for use in non-insulated ceiling or for insulated ceilings where insulation can be kept 2" from all sides of the housing.

DESIGN FEATURES
A- Housing Die-stamped 20 gauge CR6 with white powder coat finish.
B- Plaster Frame Housing is secured in plaster frame with spring bars. The housing can be adjusted in the plaster frame to adjust for different ceiling materials. The housing can be removed from the plaster frame to provide access to the junction box.
C- Junction Box UL listed for through branch circuit wiring. Positioned to accommodate straight conduit runs. Four conduit knockouts are uniform 1/2" dia with true pryout slots. Four Romex pryouts with integral strain relief also included.
D- Bar Hangers Pre-installed, captive bar hangers allow housing to be positioned at any point within a 4" trim.
E- Transformer 120V integral magnetic transformer steps line voltage down to lamp operating voltage. For lamps up to 50W.
F- Thermal Protector Self resetting thermal protector disconnects fixture if overheating occurs due to improper lamping or misapplied insulation.
G- Labels • UL Listed for Damp Location • UL Listed for Feed Through • IP Rated • CSA Certified

H1497
4" Non Insulated Ceiling Low Voltage Recessed Housing
4" TRIMS

FOR USE IN NON-INSULATED CEILING OR INSULATED CEILING WHERE INSULATION CAN BE KEPT 2" FROM ALL SIDES OF FIXTURE

COOPER LIGHTING

HARDSCAPE ONLY

H1497/1493P/L25

A-5 HALO

DESCRIPTION
The H1497 is a small aperture low voltage housing for providing accent and task lighting.

APPLICATION
The H1497 is designed for use in non-insulated ceiling or for insulated ceilings where insulation can be kept 2" from all sides of the housing.

DESIGN FEATURES
A- Housing Die-stamped 20 gauge CR6 with white powder coat finish.
B- Plaster Frame Housing is secured in plaster frame with spring bars. The housing can be adjusted in the plaster frame to adjust for different ceiling materials. The housing can be removed from the plaster frame to provide access to the junction box.
C- Junction Box UL listed for through branch circuit wiring. Positioned to accommodate straight conduit runs. Four conduit knockouts are uniform 1/2" dia with true pryout slots. Four Romex pryouts with integral strain relief also included.
D- Bar Hangers Pre-installed, captive bar hangers allow housing to be positioned at any point within a 4" trim.
E- Transformer 120V integral magnetic transformer steps line voltage down to lamp operating voltage. For lamps up to 50W.
F- Thermal Protector Self resetting thermal protector disconnects fixture if overheating occurs due to improper lamping or misapplied insulation.
G- Labels • UL Listed for Damp Location • UL Listed for Feed Through • IP Rated • CSA Certified

H1497
4" Non Insulated Ceiling Low Voltage Recessed Housing
4" TRIMS

FOR USE IN NON-INSULATED CEILING OR INSULATED CEILING WHERE INSULATION CAN BE KEPT 2" FROM ALL SIDES OF FIXTURE

COOPER LIGHTING

Gem

GEM 132PL/120/10B-P

B-1

Superior Performance Bollards

Table of Contents

- Performance Features 2
- Mechanical Design, Installation and Maintenance 3
- Ordering Information 4
- Optical System Features 6-7

GEM1
Aluminum Shaft
52 watt Compact Fluorescent
70 - 100 watt H.L.D.

GEM1C
Concrete Shaft
52 watt Compact Fluorescent
70 - 100 watt H.L.D.

KIM LIGHTING
SITE / AREA: PARKING STRUCTURE, ROADWAY, ARCHITECTURAL FLOOD ACCENT, LANDSCAPE
MAILING ADDRESS: P.O. BOX 6000, CITY OF INDUSTRY, CA 91718-0000
BUSINESS ADDRESS: 1680 SATE VALLEY AVENUE, CITY OF INDUSTRY, CA 91718 U.S.A.
PHONE: 657 / 688-2666 FAX: 657 / 688-2655
BIRTH DATE: 1978
CORPORATION: KIM LIGHTING, INC.
INCORPORATION: IN CALIFORNIA
REGISTRATION: IN CALIFORNIA
HOURS: MON-FRI 9:00-5:00
www.kimlighting.com

Printed in U.S.A.
650700273
Version 9/00

RETAIL BLDGS & HARDSCAPE

'D-1'

79M2/M7/M5/M8

6" Metal Halide Downlight

70W, 100W, 150W PAR-38 M.H., or 35W, 70W PAR-30 M.H.

Features
1. Pre-wired recessed housing.
2. Adjustable medium base porcelain socket with ridged plated screw shell.
3. 35W, 70W PAR-30 or 70W, 100W or 150W PAR-38 open bottom metal halide lamp (by others).
4. Removable specular clear, champagne gold, or black Alzak® reflector. 40° visual cutoff to lamp and lamp image. Self-lites (SL) standard. Optional potted with soft-lites (ST) available. Optical system secured by friction retaining clips. Reflector must be removed to install PAR-38 lamp.
5. Spring retained, one-piece black baffle. Standard with white polypropylene trim ring.
6. Adjustable universal mounting bracket. Accepts 1/2" tubing diameter (by others). 8-24 bar hangers available for 7-bar ceilings (order separately).
7. All ballasts are enclosed and potted, HXF, dual tap, thermally protected and accessible from below ceiling. 35W, 70W, and 100W are high reactance. 150W is constant voltage ballast/transformer (CWT). See above for voltages.
8. Pre-wired 4-con with snap-on cover for easy below ceiling access.
9. Thermal protector.
Labels: UL, CSA Listed. Suitable for damp locations.

Standard Fixtures
□ 79M2-35MHF-ST832 Clear Alzak Reflector
□ 79M2-35MHF-ST833 Champagne Gold Alzak Reflector
□ 79M2-35MHF-ST834 Black Alzak Reflector
□ 79M2-35MHF-602 Black Milgrove Baffle
□ 79M7-70MHF-ST832 Clear Alzak Reflector
□ 79M7-70MHF-ST833 Champagne Gold Alzak Reflector
□ 79M7-70MHF-ST834 Black Alzak Reflector
□ 79M5-150MHF-ST832 Clear Alzak Reflector
□ 79M5-150MHF-ST833 Champagne Gold Alzak Reflector
□ 79M5-150MHF-ST834 Black Alzak Reflector
□ 79M5-150MHF-602 Black Milgrove Baffle
□ 79M8-100MHF-ST832 Clear Alzak Reflector
□ 79M8-100MHF-ST833 Champagne Gold Alzak Reflector
□ 79M8-100MHF-ST834 Black Alzak Reflector
□ 79M8-100MHF-602 Black Milgrove Baffle

Options
□ B-24 Set of two (2) 24" bar hangers for 7-bar ceilings.
□ F20P-F4 Fuse kit for field installation.
□ F20P-F4 Fuse kit for field installation.
□ SCSA Sloped ceiling adapter. Refer to T.O. Sheet RH10-1000 for details.

Prescolite
HID-168

BUILDING B HARDSCAPE

HARDSCAPE ONLY

FG-1

LTV764 Die-Cast Brass Low Voltage Accent / Integral Transformer

Bronze Lightvaul®

revision 10/10/02 • B764.pdf

KIM LIGHTING
Type: FG-1
Job: LTV764 / MR / 50LV120 / TR60/L12
Date: Page: 1 of 5

Specifications
Lens Ring: Die-cast brass, natural finish. Five captive W blackened stainless steel hex-socket cap screws.
Lens: Clear tempered soda lime, 3/4" thick, flush with lens ring, slightly crowned.
Lens Gasket: One piece molded silicone, U-channel wraps completely around lens flange.
Die-Cast Brass Housing: Heavy wall die-cast brass.
Integral Junction Box: Die-cast brass with stainless steel flat head slotted screws and molded silicone gasket. Die-cast internal Junction Box cover with silicone gasket and anti-siphon plug, two 1/2" NPT taps in bottom, 12 cu. in. volume.
Optical System: MR - for MR16, bi-pin socket halogen lamps. Optical system is yoke mounted, 340° rotation, at 15° vertical adjustment, locking screws.
Transformer: Integral 120 volt to 12 volt, 50 watt electronic stepdown transformer.
Wiring: Anti-siphon barrier on wiring to and from splice compartment. All components wire listed for ground, quick-disconnect for removal of optical system.
Certification: UL Listed to U.S. and Canadian safety standards for wet locations. Fixture manufacturer shall employ a quality program that is certified to meet the ISO 9001 standard.

COOPER LIGHTING

HARDSCAPE & BLDG & B

FG-2

LTV764 Die-Cast Brass Low Voltage Accent / Integral Transformer

Bronze Lightvaul®

revision 10/10/02 • B764.pdf

KIM LIGHTING
Type: FG-2
Job: LTV764 / MR / 50LV120 / TR60/L12-AM72
Date: Page: 1 of 5

Specifications
Lens Ring: Die-cast brass, natural finish. Five captive W blackened stainless steel hex-socket cap screws.
Lens: Clear tempered soda lime, 3/4" thick, flush with lens ring, slightly crowned.
Lens Gasket: One piece molded silicone, U-channel wraps completely around lens flange.
Die-Cast Brass Housing: Heavy wall die-cast brass.
Integral Junction Box: Die-cast brass with stainless steel flat head slotted screws and molded silicone gasket. Die-cast internal Junction Box cover with silicone gasket and anti-siphon plug, two 1/2" NPT taps in bottom, 12 cu. in. volume.
Optical System: MR - for MR16, bi-pin socket halogen lamps. Optical system is yoke mounted, 340° rotation, at 15° vertical adjustment, locking screws.
Transformer: Integral 120 volt to 12 volt, 50 watt electronic stepdown transformer.
Wiring: Anti-siphon barrier on wiring to and from splice compartment. All components wire listed for ground, quick-disconnect for removal of optical system.
Certification: UL Listed to U.S. and Canadian safety standards for wet locations. Fixture manufacturer shall employ a quality program that is certified to meet the ISO 9001 standard.

COOPER LIGHTING

727 E. MARYLAND AVE
PHOENIX, AZ 85014
PHONE: 602.266.6202
FACSIMILE: 602.265.6212

THE PROMENADE - PHASE II
SCOTTSDALE, AZ
FOR THE FEDERSON GROUP

REVISIONS

NO.	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

SCHEMATIC
DESIGN DEVELOPMENT
CONSTRUCTION DOCUMENTS
BID/PRICING
BACKPACKING
BUILDING DEPT. APPROVAL

DATE ISSUED
DRAWN BY
CHECKED BY
PROJECT NO.
CADD FILE
SCALE:
DRAWING NO.

APPROVED
FINAL PLANS
DATE: 9.30.04

T M A D Engineers
Mechanical, and Electrical Consulting Engineers
7250 N. 16th Street, Suite 200
Phoenix, Arizona 85020
(602) 371-1333
Job No. 560X-000.00

ED.1

RETAIL BLDGS & HARDSCAPE FG-3

LTV750 Series Bronze Housing Accent or Wall Wash Bronze Lightvaul®

Specifications, Mounting Options, and technical diagrams for FG-3 fixture.

HARDSCAPE ONLY FL-1

Sign/Wall Lighter 4305 120 Volt Extruded Aluminum, T-8 Fluorescent

Specifications, Mounting Options, and technical diagrams for FL-1 fixture.

HARDSCAPE ONLY FL-2

Architectural Floodlights AFL10 120V/201 - 410V/201

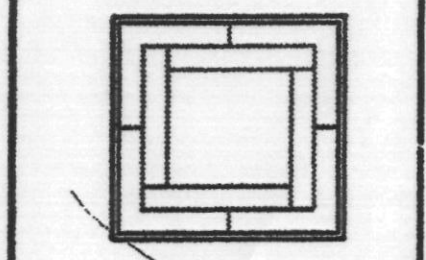
Specifications, Mounting Options, and technical diagrams for FL-2 fixture.

RETAIL BLDGS & HARDSCAPE

Large technical drawing of a lighting fixture with detailed specifications and labels.

727 E. MARYLAND AVE PHOENIX, AZ 85014

THE PROMENADE - PHASE II SCOTTSDALE, AZ FOR THE PEDERSON GROUP



REVISIONS table with columns for date, description, and revision number.

SCHEMATIC, DESIGN DEVELOPMENT, CONSTRUCTION DOCUMENTS, etc.

DATE ISSUED, DRAWN BY, CHECKED BY, etc.

DRAWING NO. ED.2

RETAIL BLDGS & HARDSCAPE FL-A

Sign/Wall Lighter 4305 120 Volt Extruded Aluminum, T-8 Fluorescent

Specifications, Mounting Options, and technical diagrams for FL-A fixture.

THIS FIXTURE HAS BEEN DELETED

BLDG B HARDSCAPE GM-1

Scarab™ EL740 120 Volt Die-Cast Aluminum, PAR38 Incandescent / Halogen

Specifications, Mounting Options, and technical diagrams for GM-1 fixture.

HARDSCAPE ONLY GM-2

Scarab™ 6740 Die-Cast Aluminum, PAR38 Metal Halide / Mercury Vapor

Specifications, Mounting Options, and technical diagrams for GM-2 fixture.

HARDSCAPE & RETAIL BLDGS GM-3

Scarab™ EL730 120 Volt Die-Cast Aluminum, PAR30 Halogen

Specifications, Mounting Options, and technical diagrams for GM-3 fixture.

ARIZONA REVISED STATUTES 32-1129.01.

NOTICE OF EXTENDED CERTIFICATION AND APPROVAL PERIOD PROVISION

T M A D Engineers Mechanical, and Electrical Consulting Engineers

7250 N. 16th Street, Suite 200 Phoenix, Arizona 85020

RETAIL BLDGS & HARDSCAPE

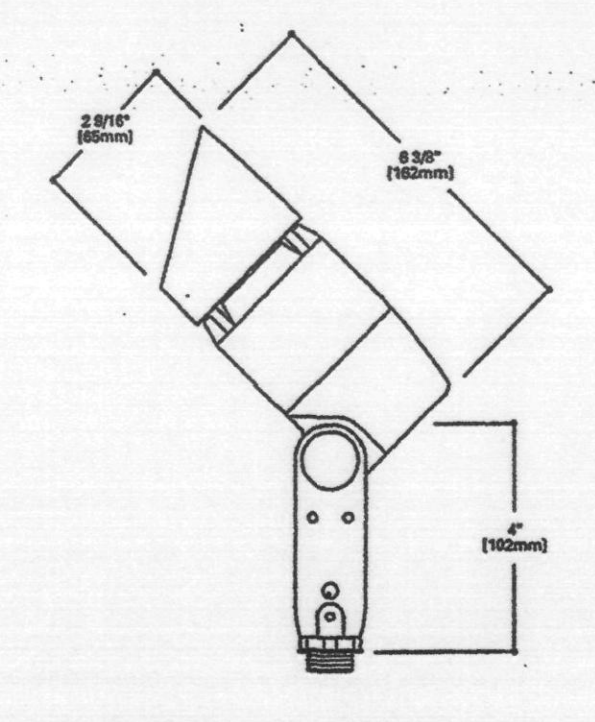
353-PK-MB2-LVR GM-4

Lumière

DESCRIPTION
An ultra-compact light weight line voltage fixture with integrated 120V electronic transformer for use with 10W MR16 lamps. Its unique, patented design combines durability for architectural and landscaping use with versatility for accent, flood and general illumination. Fully adjustable from all mounting positions, with patented anti-siphon construction to prevent water entry through lead wires. Built-in adjustable glare shield and recessed light source reduce glare without impacting lamp function. Protected by U.S. patent no. 5,899,091.

FEATURES
A-Finish: Fixture constructed from a non-corrosive high temperature composite material selected for its ability to withstand the rigors of the landscape environment. Black Finish.
B-Lens: Tempered glass, secured with a high temperature adhesive.
C-Bracket: Housing and hood are sealed with a high temperature "O" ring gasket.
D-Housing: Injection molded from high temperature composite material. Stainless steel and brass hardware.
E-Head: Injection molded from high temperature composite material. Hood removes for easy relamping.

FUNCTIONS
A-Adjustability: Adjustable stem equipped with standard 1/2" NPS threaded male fitting. Allows full range of aiming from any mounting position.
B-Heat: Ceramic socket with 250° C Teflon® coated lead wires.
C-Integral Transformer: Electronic transformer sealed in stem assembly for cool operation and maximum efficiency.
D-Electrical: Compatible with dimmers and control systems designed for use with electronic transformers.
E-Label: UL listed, standard wet label. C-UL certified.



ORDERING INFORMATION
SAMPLE NUMBER: 353 BK

Fixture	Finish	Accessories
353	BK	(Order Separately)

See Sheet B for Available Accessories

WWW.COOPERLIGHTING.COM

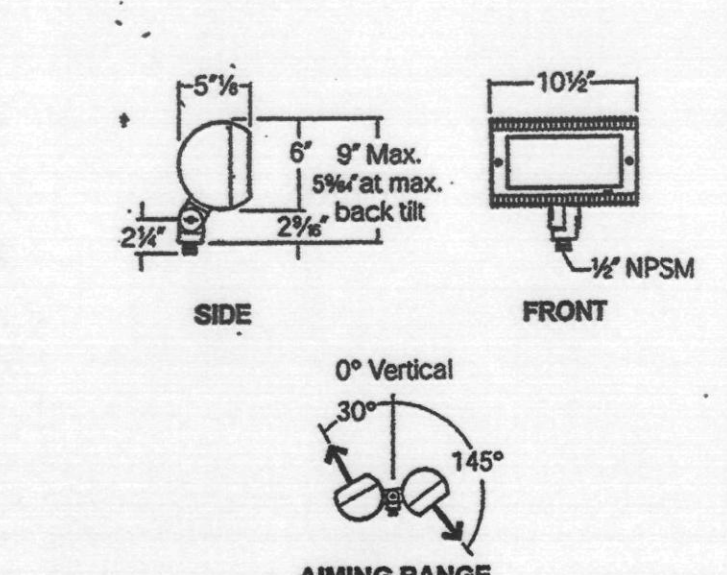
BLOGARD ONLY MHF-1 CFL

KIM LIGHTING
Type: CFL
Job: PD-CFL/BLP-JW/BLP
Fixture Catalog number: CELL-SO-MHFD-BP
Mounting Options: TOP SHIELD

Approved: _____
Date: _____

Specifications
Dimensions: CFL Models 50 to 70 watt H.I.D. Medium Base Lamps 13 to 42 watt Compact Fluorescent 60 watt Incandescent 150 watt Halogen
Maximum weight: 13 lb

Housing: One piece die-cast low copper aluminum in a cylindrical shape with integral cooling fins over the entire length and 100' minimum wall thickness. One piece silicone gasket between housing and lens frame.
Lens Frame: One piece die-cast low copper aluminum with integral cooling fins, 100' minimum wall thickness, mates with housing to create a continuous cylindrical shape. 1/8" thick clear tempered glass lens is sealed to the lens frame by a one piece stamped silicone gasket. Lens frame secures to housing by two stainless steel recessed captive allen-head screws.
Ballast: Die-cast aluminum with integral locking teeth providing 9° adjustment intervals and 1/2" NPSM plus solid brass knockout for mounting. Clear anodized prior to chrome conversion coating for added corrosion resistance. Fasteners: Stainless steel, recessed captive allen-head screws. Reflector: Specular Alzak® aluminum optical components mounted to aluminum frame.
Socket: 4KV porcelain medium base (E-10 Incandescent and H.I.D.), T4 Mini-con (Halogen), 13w G23-2 2-pin base, 40w G23-2 4-pin base (Fluorescent).
Ballast: All electrical components are UL and CSA recognized with leads extending out of the sealed apical compartment. Normal power factor ballast rated 327' starting (15 watt Twin Tube Fluorescent); High power factor ballast rated 075' starting (42 watt Tube Fluorescent). Reactor - High power factor with starting temperature of 40°F for HPS and 20°F for MH lamp models. For MH/20 volt, a step-up transformer is provided. For HPS/277 volt, a step-down transformer is provided (H.I.D.).
Finish: Super TIG (tungsten) polymer powder coat paint, 2.5 mil nominal thickness, applied over a chrome conversion coating 2500 hour salt spray test endurance rating. Standard colors are Black, Dark Storm, Light Gray, Platinum Silver, Verde Green or White. Custom colors are available and subject to additional charge, minimum quantities and longer lead times. Consult representative.
Certification: UL Listed to U.S. and Canadian safety standards for wet locations. Fixture manufacturer shall employ a quality program that is registered to ISO 9001 standard.
CAUTION: Fixtures must be grounded in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.



FIXTURE TO BE PROVIDED W/ TOP SHIELD

RETAIL BLDGS & HARDSCAPE MHF-2

Small Floodlight ORDERING SEQUENCE

CATALOG NUMBER	VOLTAGE	WATTAGE (Factory Installed)
TFL	120V	175-250W

Shipping Method: _____
Lamp: _____
Finish: _____
Mounting: _____

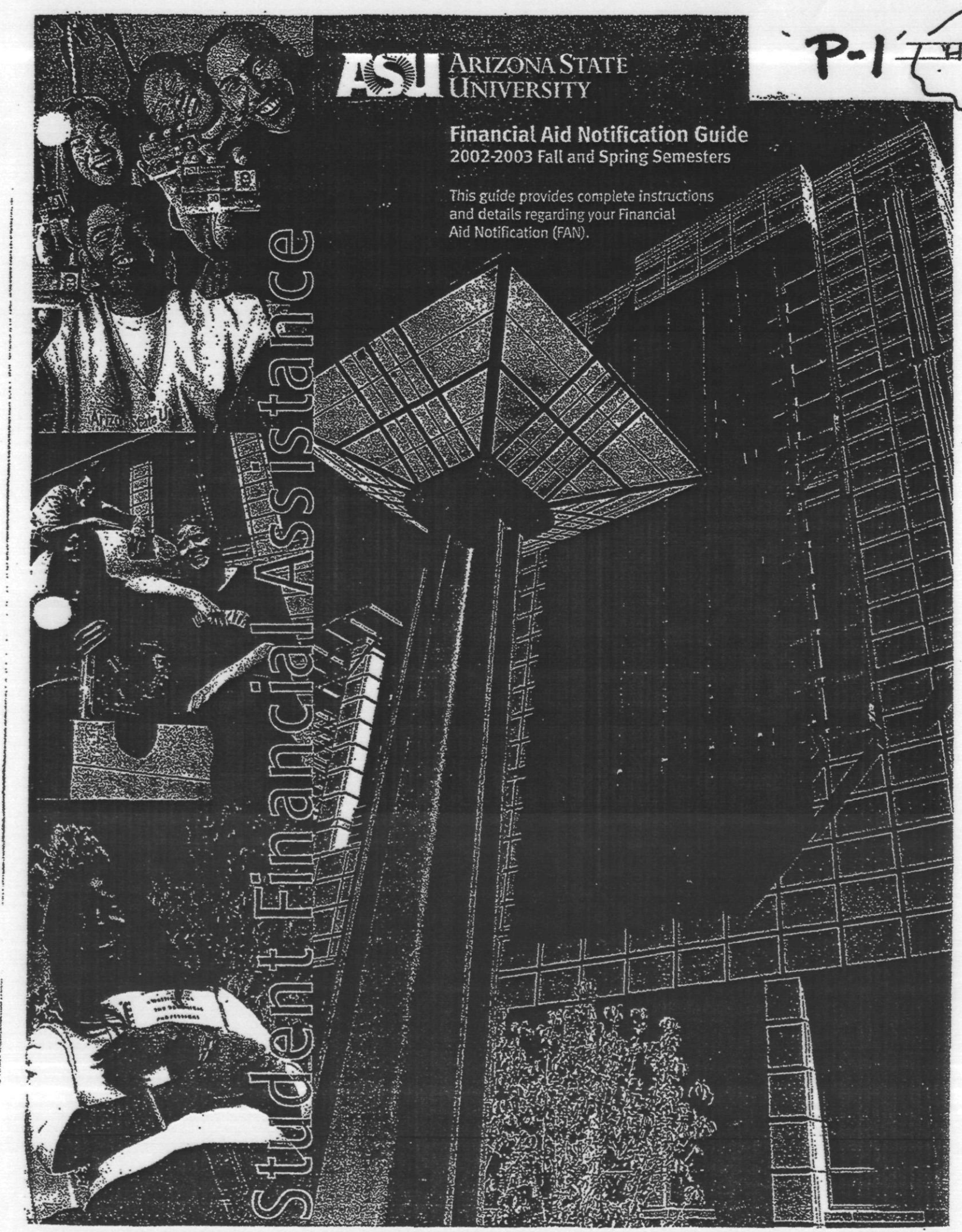
Specifications
Housing: One piece die-cast low copper aluminum in a cylindrical shape with integral cooling fins over the entire length and 100' minimum wall thickness. One piece silicone gasket between housing and lens frame.
Lens Frame: One piece die-cast low copper aluminum with integral cooling fins, 100' minimum wall thickness, mates with housing to create a continuous cylindrical shape. 1/8" thick clear tempered glass lens is sealed to the lens frame by a one piece stamped silicone gasket. Lens frame secures to housing by two stainless steel recessed captive allen-head screws.
Ballast: Die-cast aluminum with integral locking teeth providing 9° adjustment intervals and 1/2" NPSM plus solid brass knockout for mounting. Clear anodized prior to chrome conversion coating for added corrosion resistance. Fasteners: Stainless steel, recessed captive allen-head screws. Reflector: Specular Alzak® aluminum optical components mounted to aluminum frame.
Socket: 4KV porcelain medium base (E-10 Incandescent and H.I.D.), T4 Mini-con (Halogen), 13w G23-2 2-pin base, 40w G23-2 4-pin base (Fluorescent).
Ballast: All electrical components are UL and CSA recognized with leads extending out of the sealed apical compartment. Normal power factor ballast rated 327' starting (15 watt Twin Tube Fluorescent); High power factor ballast rated 075' starting (42 watt Tube Fluorescent). Reactor - High power factor with starting temperature of 40°F for HPS and 20°F for MH lamp models. For MH/20 volt, a step-up transformer is provided. For HPS/277 volt, a step-down transformer is provided (H.I.D.).
Finish: Super TIG (tungsten) polymer powder coat paint, 2.5 mil nominal thickness, applied over a chrome conversion coating 2500 hour salt spray test endurance rating. Standard colors are Black, Dark Storm, Light Gray, Platinum Silver, Verde Green or White. Custom colors are available and subject to additional charge, minimum quantities and longer lead times. Consult representative.
Certification: UL Listed to U.S. and Canadian safety standards for wet locations. Fixture manufacturer shall employ a quality program that is registered to ISO 9001 standard.
CAUTION: Fixtures must be grounded in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.

TFL METAL HALIDE

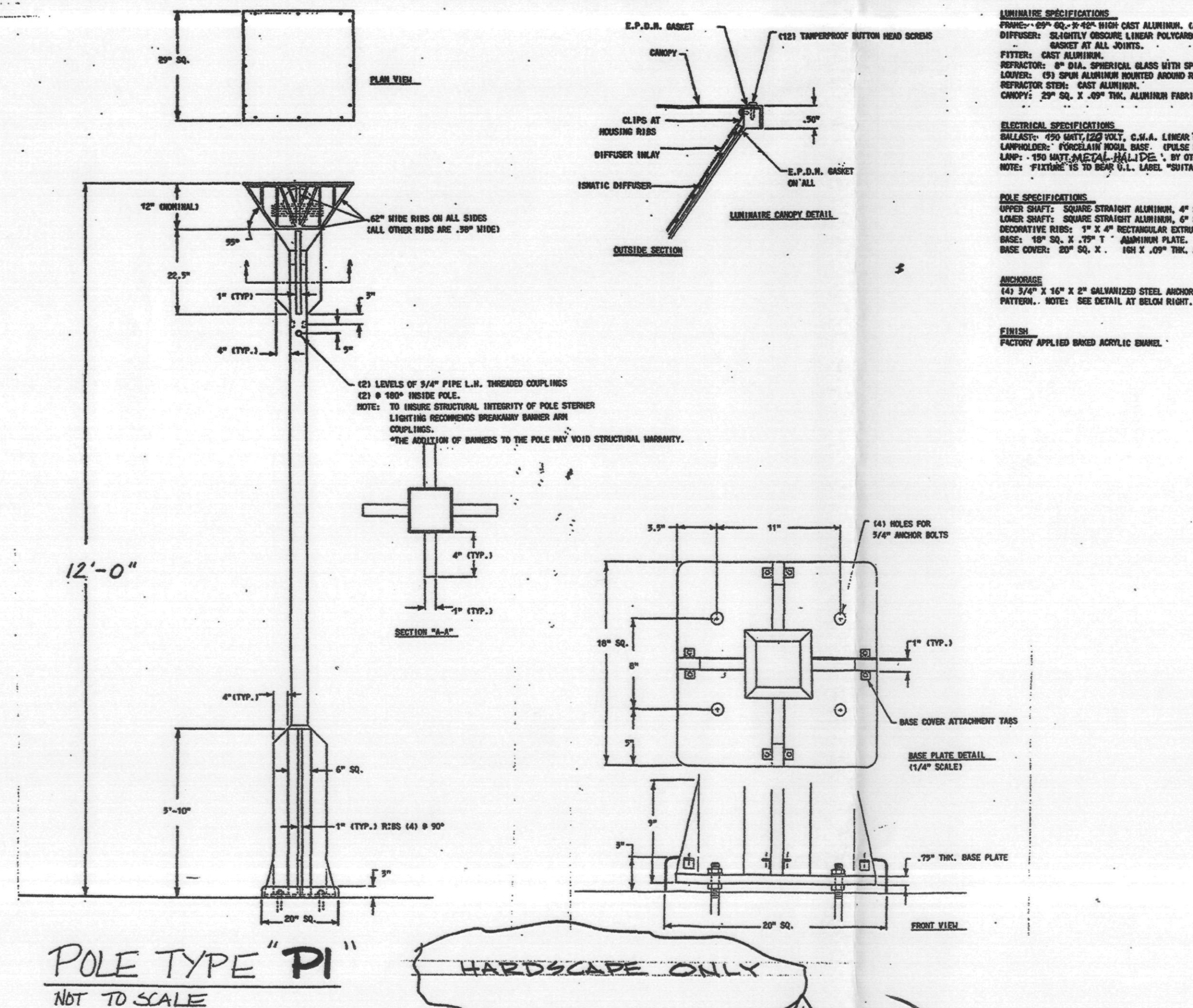


175/250W 15' to 30' Mounting

Specifications
Housing - Compact NEMA heavy duty construction. Die-cast aluminum housing and front cover. Front cover is hinged for easy internal access. Lens is heavy duty, thermal shock-resistant clear tempered glass. Standard finish is dark bronze TIG polyester powder electrostatically applied and oven cured.
Optical - One piece hydroformed, anodized aluminum provides twin beam light patterns with 2 position adjustable socket. Optic chamber is sealed to inhibit entrance of outside contaminants.
Electrical - Electrical components are mounted to the cast aluminum housing promoting maximum heat dissipation. Ballast, 100% copper wound and factory tested, is constant voltage autotransformer.
Installation - Corrosion resistant, heavy duty polished steel mounting yoke with repositioning stop and degree aiming scale is standard. All external screws are stainless steel.
Listing - UL 1572 listed suitable for wet locations.
Socket - Porcelain, vertically oriented mogul base socket with copper alloy nickel plated screw shell and center contact. UL listed 1500W-800V, 4KV poles rated.
LITHONIA HI-TEK



BUILDING B HARDSCAPE P-1 HARDSCAPE ONLY



POLE TYPE "PI" NOT TO SCALE

HARDSCAPE ONLY BUILDING B HARDSCAPE

APPROVED
FINAL PLANS
DATE: 9-30-01

727 E. MARYLAND AVE
Phoenix, AZ 85014
phone: 602.266.6202
faxline: 602.265.6212

THE PROMENADE - PHASE II
SCOTTSDALE, AZ
FOR THE PEDERSON GROUP



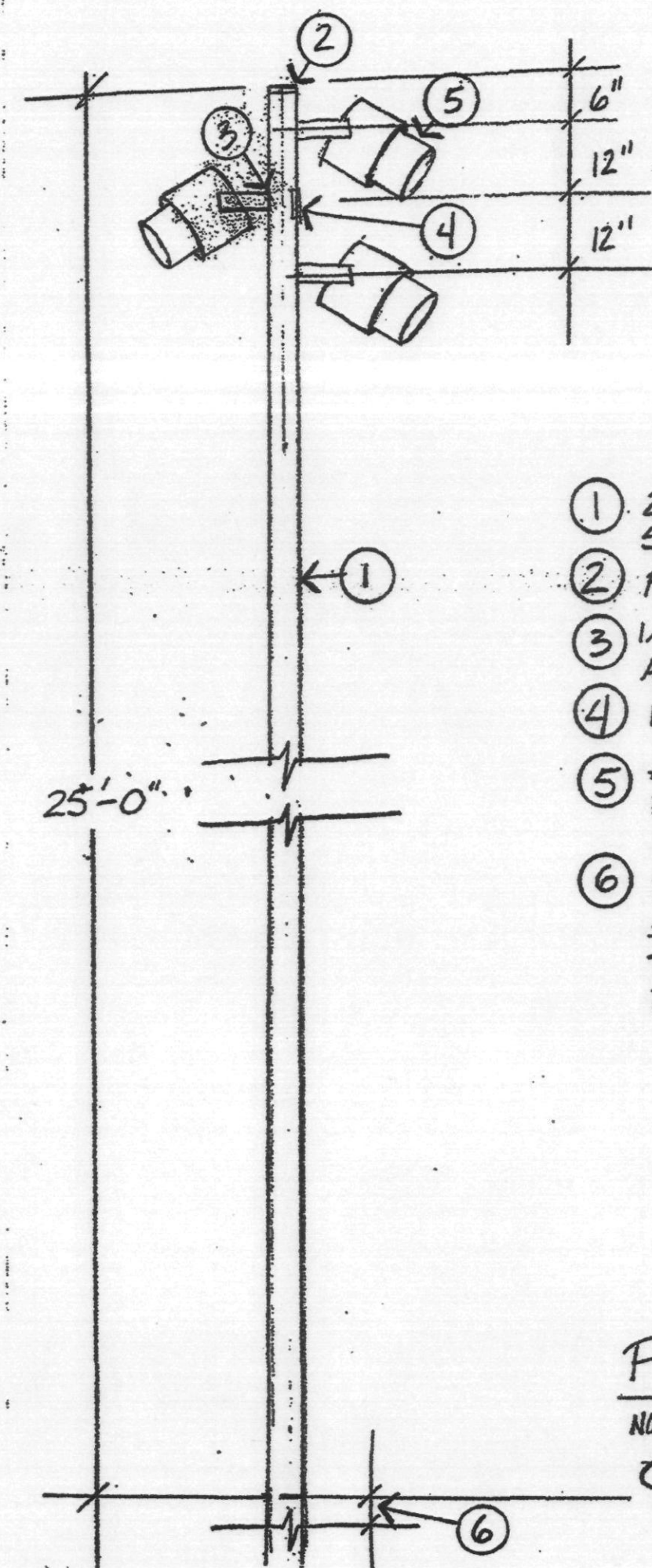
REVISIONS	DATE	BY

SCHEMATIC
DESIGN DEVELOPMENT
CONSTRUCTION DOCUMENTS
BID/PRICING PACKAGE
BUILDING DEPT. APPROVAL

DATE ISSUED: _____
DRAWN BY: _____
CHECKED BY: _____
PROJECT NO.: _____
CADD FILE: _____
SCALE: _____
DRAWING NO.: ED.3

ARIZONA REVISED STATUTES 32-1129.01.
NOTICE OF EXTENDED CERTIFICATION AND APPROVAL PERIOD PROVISION:
This contract allows the owner to certify and approve billings and estimates within 30 days after the billings and estimates are received from the contractor.
NOTICE OF EXTENDED PAYMENT PROVISION:
This contract allows the owner to make payments within 30 days after certification and approval of billings and estimates.

T M A D Engineers
Mechanical, and Electrical Consulting Engineers
7250 N. 16th Street, Suite 200
Phoenix, Arizona 85020
(602) 371-1333
Job No. 560X-00X.00



- ① 25' SQUARE PAINTED STEEL POLE.
- ② POLE CAP
- ③ 1/2" THREADED RECEIVER AND GROMET
- ④ HANDHOLE
- ⑤ ALTMAN THEATRICAL FIXTURE. (SEE ATTACHED LIT SHEETS.)
- ⑥ POLE SET IN CONCRETE SIDE WALK. DEPTH TO BE DETERMINED BY POLE MFR.

POLE TYPE "P2"
NOT TO SCALE

HARDSCAPE ONLY

ALTMAN

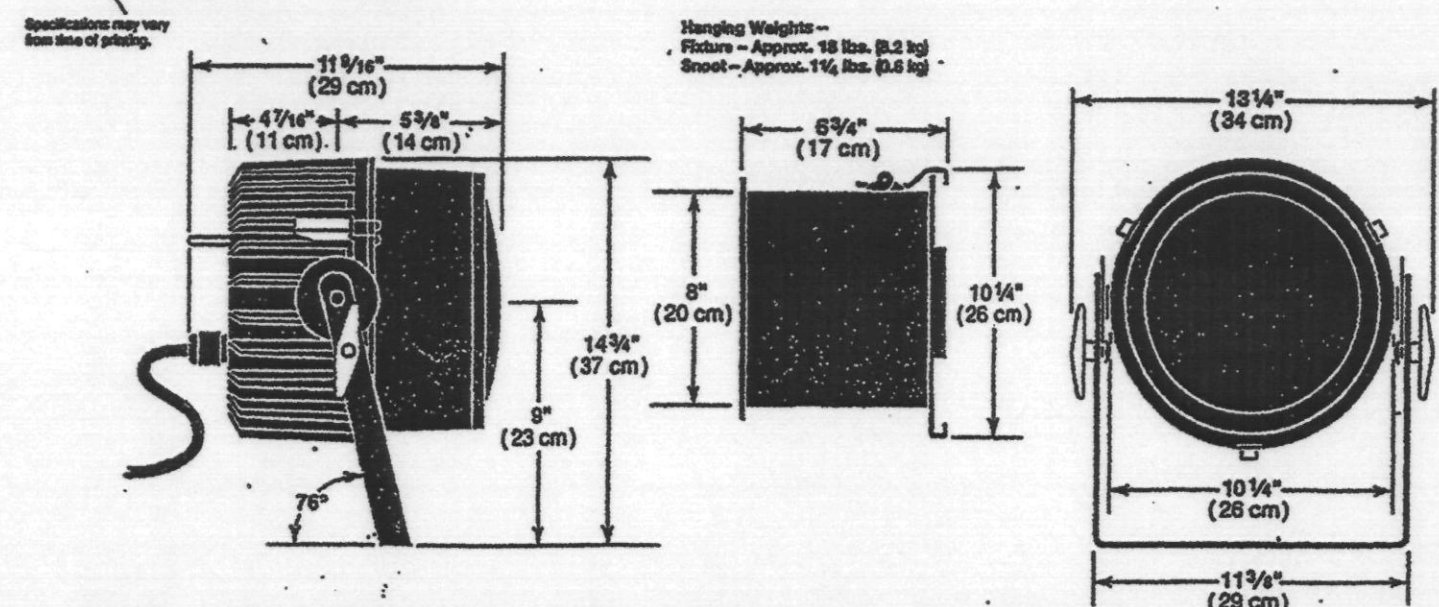
Catalog number: P2
OUTDOOR-PAR64

HARDSCAPE ONLY

1000 Watts PAR 64 portable wet location spotlight/floodlight

The OUTDOOR-PAR luminaire is designed for portable or permanent installations in wet locations for use with PAR64 sealed beam lamps. The housing is constructed of cast aluminum for maximum durability. The lens holder and external hardware are made of stainless steel. The unit can be externally rotated to allow for focusing of the lamp. The positive locking handles are designed for easy positioning of the fixture. The yoke allows for surface mounting or can be hung with an optional pipe clamp. A separate aluminum handle is also provided on the rear for added convenience. All removable components have gaskets to ensure a watertight seal. All surfaces are finished with a highly durable, low gloss baked enamel paint. The wiring is composed of 24" high-temperature leads in an overall high-temperature, waterproof, sunlight resistant jacket through a gasketed liquid tight strain relief. The lens is made of clear borosilicate glass to withstand high temperatures and tempered for maximum strength. The optional anod/color frame holder accommodates standard gel and dichroic color media.

- Features**
- Cast aluminum construction
 - Designed for portable or permanent, wet or damp installations
 - Combination anod/color frame holder available
 - 24" H-Temp sunlight resistant waterproof cable
 - 2 position yoke adjustment
 - H-Temp safety glass included
 - UL and c.U.L. listed for 1000 watt and suitable for wet locations
 - 360° lamp rotation



Altman Stage Lighting Company, Inc.
57 Alexander Street, Yonkers, NY 10701
914-478-7987
212-569-7777
FAX: 914-963-7304

ALTMAN

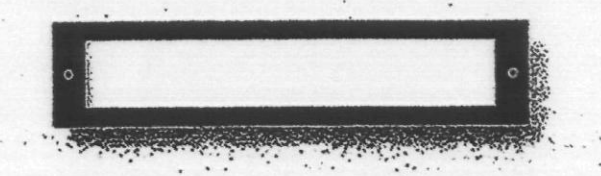
THE QUALITY OF LIGHT

HARDSCAPE ONLY

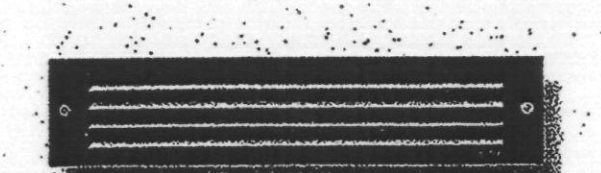
ST-1

HARDSCAPE ONLY

Lamp	Lumen A	B	C
2284 W/Transformer	1 18W 58,12V	264	6 29% 4%
2288P Recessed	1 9W PL	600	9% 29% 4%
2287P Recessed	1 13W PL	900	11% 29% 4%



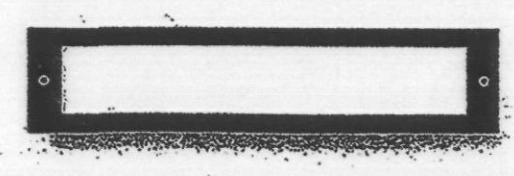
Lamp	Lumen A	B	C
2283 W/Transformer	1 18W 58,12V	264	6 29% 4%
2288P Recessed	1 9W PL	600	9% 29% 4%
2287P Recessed	1 13W PL	900	11% 29% 4%



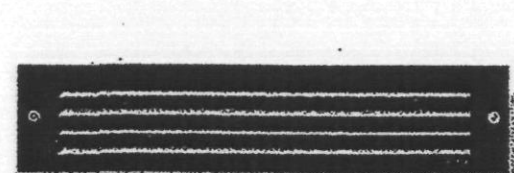
ST-2

BLDG AND ONLY

Lamp	Lumen A	B	C
2284 W/Transformer	1 18W 58,12V	264	6 29% 4%
2288P Recessed	1 9W PL	600	9% 29% 4%
2287P Recessed	1 13W PL	900	11% 29% 4%

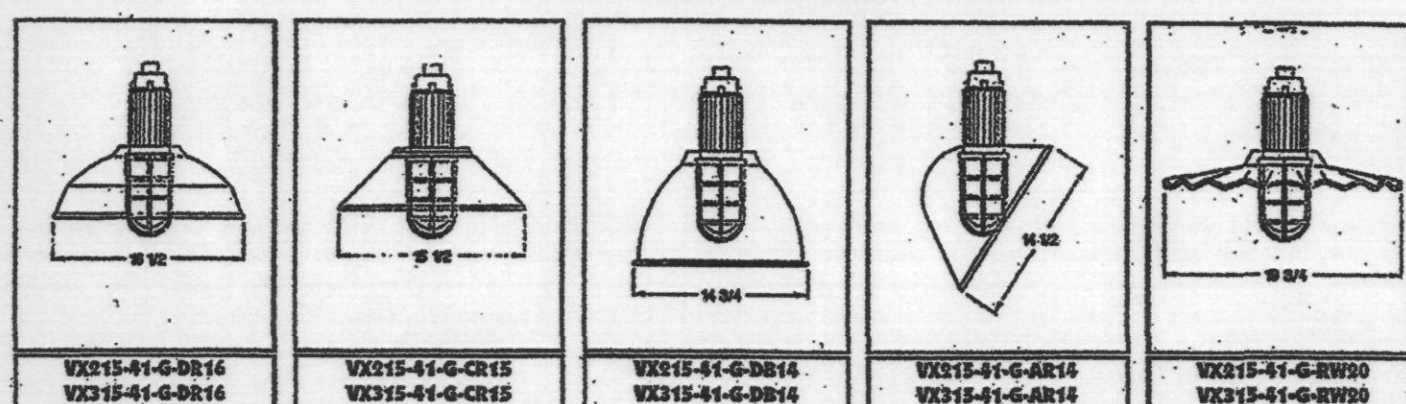


Lamp	Lumen A	B	C
2283 W/Transformer	1 18W 58,12V	264	6 29% 4%
2288P Recessed	1 9W PL	600	9% 29% 4%
2287P Recessed	1 13W PL	900	11% 29% 4%



BLDG B HARDSCAPE

HARDSCAPE ONLY TM-1



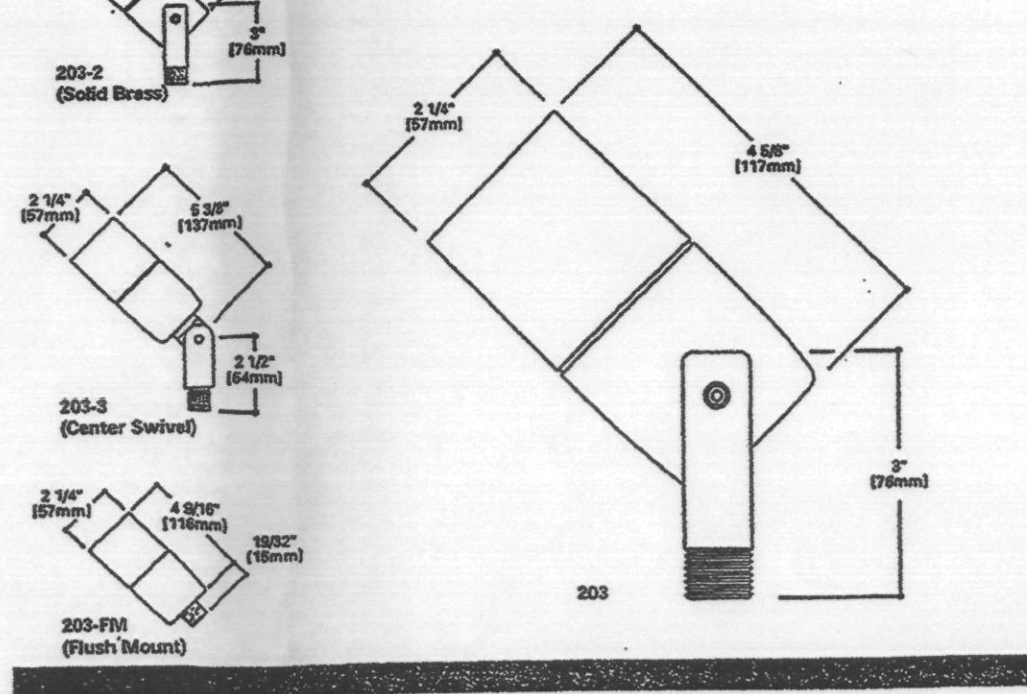
Fixture Series	Optional Globe Type	Guard Option	Ballast Type	Voltage	Color Finish Option	Reflector Option	Reflector Color
VP215-41	Standard fixture includes a No. 41 clear glass globe. Select one of the following fixtures for alternative:	None	YB84-CF YB84-CF	120V-60Hz Universal Voltage	G0 Black G1 White G2 Red G3 Yellow G4 Blue G5 Green G6 Brown G7 Verdigris G8 Dark Green G9 Bronze G10 Dark Green	None	None
VP215-41	Prismatic Glass Optal Glass Amber Glass Red Glass Clear Lexan Prismatic Lexan Amber Lexan Blue Lexan Green Lexan Red Lexan	Screw-On Die-Cast Guard	YB84-APS YB84-APS YB84-APS YB84-APS	R4-150V Reactor R4-150V Reactor 100V Only	G0 Black G1 White G2 Red G3 Yellow G4 Blue G5 Green G6 Brown G7 Verdigris G8 Dark Green G9 Bronze G10 Dark Green	None	None
VP215-41	Opal Lexan Amber Lexan Blue Lexan Green Lexan Red Lexan	Guard Option Is Not Available With Lexan Globe	YB84-APS YB84-APS YB84-APS YB84-APS	R4-150V Reactor R4-150V Reactor 100V Only	G0 Black G1 White G2 Red G3 Yellow G4 Blue G5 Green G6 Brown G7 Verdigris G8 Dark Green G9 Bronze G10 Dark Green	None	None
VP215-41	Prismatic Lexan Amber Lexan Blue Lexan Green Lexan Red Lexan	Guard Option Is Not Available With Lexan Globe	YB84-APS YB84-APS YB84-APS YB84-APS	R4-150V Reactor R4-150V Reactor 100V Only	G0 Black G1 White G2 Red G3 Yellow G4 Blue G5 Green G6 Brown G7 Verdigris G8 Dark Green G9 Bronze G10 Dark Green	None	None
VP215-41	Opal Lexan Amber Lexan Blue Lexan Green Lexan Red Lexan	Guard Option Is Not Available With Lexan Globe	YB84-APS YB84-APS YB84-APS YB84-APS	R4-150V Reactor R4-150V Reactor 100V Only	G0 Black G1 White G2 Red G3 Yellow G4 Blue G5 Green G6 Brown G7 Verdigris G8 Dark Green G9 Bronze G10 Dark Green	None	None

EXAMPLE OF A TYPICAL ORDER: VP215-41 - P - G - VB42-CF - 120 - G3 - AR14 - G2

THE SPERO ELECTRIC CORPORATION 1705 NOBLE ROAD CLEVELAND, OHIO 44112
PHONE: (216) 851-3300, FAX: (216) 851-0300 http://www.speroelectric.com E-13

DESCRIPTION

An ultra-compact low voltage fixture for use with T5 MR16 lamps. Its contemporary design combines durability for architectural and landscape use with versatility for accent, flood and general illumination. Fully adjustable from all mounting positions, with built in Dyakon Protection System (DPS) to prevent water entry through lead wires. Recessed light source reduces glare with out impairing lamp function.



Fixture	Finish	Options	Accessories
203	BK	TM05	(See Separately)

Lumiere



CAMBRIA 203
LOW VOLTAGE AREA/ACCENT

GARD-N-POST



GARD-N-POST

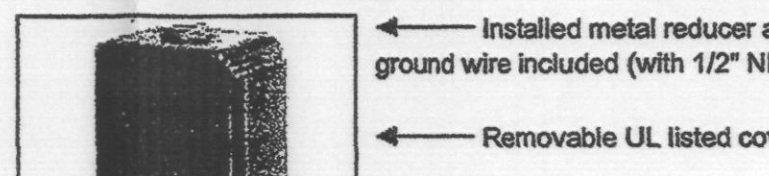
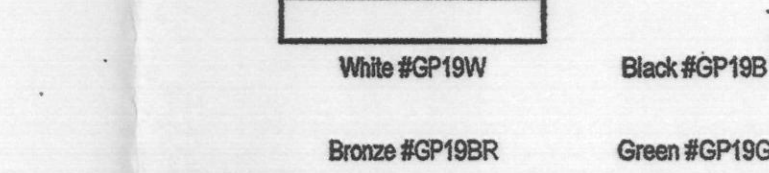
WHAT'S NEW

GARD-N-POST Low Profile Support for Outdoor Light Fixtures

Saves Time • Convenient • Safe • 4 colors

In addition to the grounded metal bushing assembly, GARD-N-POST includes a cap to plug the opening on top, in case you install only a wiring device and not a fixture.

Two knockouts in the removable insert allow for the installation of conduit or fittings. You can install an outdoor light fixture OR a GFCI wiring device with a waterproof cover or BOTI!



Colors:
White #GP19W Black #GP19B
Bronze #GP19R Green #GP19G

← Installed metal reducer and grounding bushing with ground wire included (with 1/2" NPT female thread)

← Removable UL listed cover for easy wire installation

← Moulded-in stabilizers provide rigid support for the GARD-N-POST. No assembly required; no parts to lose!

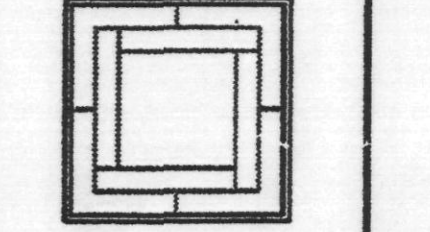
HARDSCAPE ONLY

(BLDG B HARDSCAPE)

9/10/2002
APPROVED
DATE 9.20.04
Kurt

727 E. MARYLAND AVE
PHOENIX, AZ 85014
PHONE: 602.266.6203
FACSIMILE: 602.265.6212

THE PROMENADE - PHASE II
SCOTTSDALE, AZ
FOR THE PEDERSON GROUP



NO. 1010	NO. 1011	NO. 1012	NO. 1013	NO. 1014	NO. 1015	NO. 1016	NO. 1017	NO. 1018	NO. 1019	NO. 1020
----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------

SCHEMATIC	DATE ISSUED
DESIGN DEVELOPMENT	DRAWN BY
CONSTRUCTION DOCUMENTS	CHECKED BY
BID/PRICING PACKAGE	PROJECT NO.
BUILDING DEPT. APPROVAL	CADD FILE
	SCALE:
	DRAWING NO.

ED.4

ARIZONA REVISED STATUTES 32-1129.01.
NOTICE OF EXTENDED CERTIFICATION AND APPROVAL PERIOD PROVISION.
This contract allows the owner to certify and approve billings and estimates within 30 days after the billings and estimates are received from the contractor.
NOTICE OF EXTENDED PAYMENT PROVISION.
This contract allows the owner to make payments within 30 days after certification and approval of billings and estimates.

T M A D Engineers
Mechanical, and Electrical Consulting Engineers
7250 N. 16th Street, Suite 200
Phoenix, Arizona 85020
(602) 371-1333
Job No. 560X-00X.00