

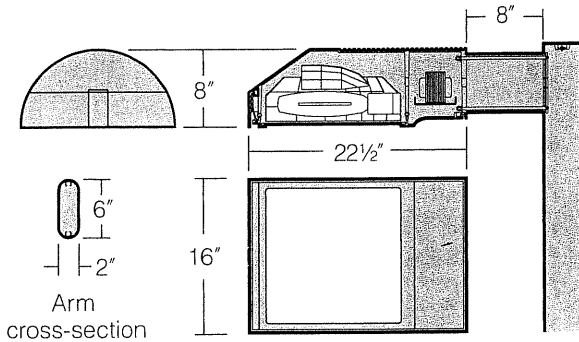
Luminaire Specifications

AR and SAR Models

Dimensions

AR Model

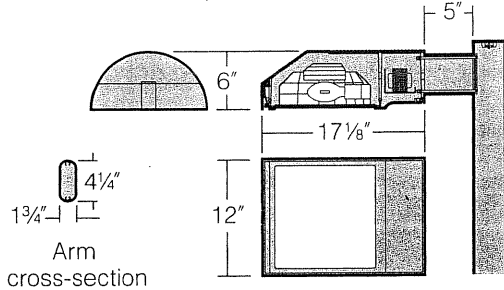
150 to 400 watt
Mogul Base Lamps



Maximum Fixture weight (400HPS) = 45 lb

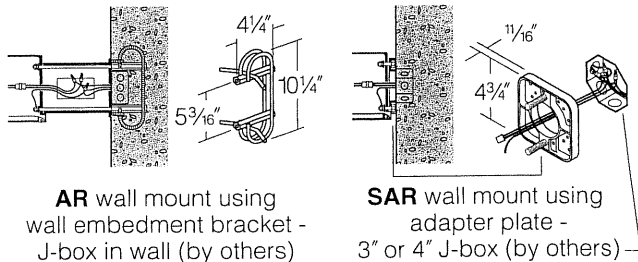
SAR Model

70 to 175 watt
Medium Base Lamps



Maximum Fixture weight (150HPS) = 25 lb

Optional Wall Mounts



AR wall mount using wall embedment bracket - J-box in wall (by others)

SAR wall mount using adapter plate - 3" or 4" J-box (by others)

Housing: One piece low copper (less than .6%) die-cast aluminum alloy with integral cooling ribs over the optical chamber and electrical compartment. Solid barrier wall separates optical and electrical compartments. Double-thick wall with gussets on the support-arm mounting end. For the large AR model, housing forms a half cylinder with 55° front face plane providing a recess to allow a flush single-latch detail. For the small SAR model, housing forms a half cylinder with 58° front face plane providing a recess to allow a flush single-latch detail. All hardware is stainless steel or electro-zinc plated steel.

Lens Frame: One piece low copper (less than .6%) die-cast aluminum alloy lens frame with 1" minimum depth around the gasket flange. Integral hinges with stainless steel pins provide no-tool mounting and removal from housing. Single die-cast aluminum cam-latch provides positive locking and sealing of the optical chamber by a one piece extruded and vulcanized silicone gasket. Clear 3/16" thick tempered glass lens retained by eight steel clips with full silicone gasketing around the perimeter.

Reflector Module: Specular Alzak® optical segments are rigidly mounted within a die-cast aluminum enclosure that attaches to the housing as a one-piece module. Reflector module is field rotatable in 90° increments. AR model HPS and PMH sockets are porcelain 4KV pulse rated mogul base, MH sockets are porcelain mogul base, pin-oriented, with molded silicone lamp stabilizer. SAR model MH and HPS sockets are porcelain 4KV pulse rated medium base. All reflector modules are factory prewired with quick-disconnect plug and include silicone seal at the penetration of the internal barrier wall in the luminaire housing.

Electrical Module: All electrical components are UL and CSA recognized, mounted on a single plate and factory prewired with quick-disconnect plugs. Electrical module attaches to housing with no-tool hinges and latches, accessible by opening the lens frame only. All ballasts are high power factor rated -20°F. starting.

Support Arm: One piece extruded aluminum with internal bolt guides and fully radiussed top and bottom. Luminaire-to-pole attachment is by internal draw bolts, and includes a pole reinforcing plate with wire strain relief. Arm is circular cut for specified round pole.

Optional Wall Mounting: Large AR model mounted to poured concrete walls only. A modified support arm is provided with side access to allow field splices within the arm. A wall embedment bracket is provided to accept draw bolts, and a trim plate covers the wall-embedded Junction Box. All wall mount components are finished to match the fixture. Small SAR model mounts to 3" or 4" Junction Boxes by a cast aluminum adapter plate with fixture mounting bolts.

NOTE: Junction Box in wall must provide adequate fixture support. See NEC sections 370-13, 17 and 410-14, 16. Quick-disconnect plug and wiring are provided to allow field connections prior to SAR fixture mounting.

Finish: Super TGIC thermoset polyester powder coat paint, 2.5 mil nominal thickness, applied over a chromate conversion coating; 2500 hour salt spray test endurance rating. Standard colors are Black, Dark Bronze, Light Gray, Platinum Silver, or White. Custom colors are available and subject to additional charges, 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 certified to meet the ISO 9001:2000 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.

Lamp and Electrical Guide

| Lamp | Lamp Watts | ANSI Ballast Type | Life (Hours) | Initial Lumens ¹ | Voltage | Operating Amps. | Open Circuit | Starting Amps. | Max. Amps. |
|------------------------------------------------------------------------------------------------|------------|-------------------|--------------|-----------------------------|---------|-----------------|--------------|----------------|------------|
| HIGH PRESSURE SODIUM | | | | | | | | | |
| 70HPS ED-17 Clear Medium Base (SAR only) | 70 | S-62 | 24000 | 6300 | 120 | 0.81 | 1.45 | 0.75 | 1.45 |
| | | | | | 208 | 0.47 | 0.85 | 0.45 | 0.85 |
| | | | | | 240 | 0.40 | 0.75 | 0.37 | 0.75 |
| | | | | | 277 | 0.35 | 0.65 | 0.35 | 0.65 |
| | | | | | 347 | 0.30 | 0.55 | 0.30 | 0.55 |
| 100HPS ED-17 Clear Medium Base (SAR only) | 100 | S-54 | 24000 | 9500 | 120 | 1.15 | 2.20 | 1.30 | 2.20 |
| | | | | | 208 | 0.67 | 1.25 | 0.75 | 1.25 |
| | | | | | 240 | 0.58 | 1.10 | 0.65 | 1.10 |
| | | | | | 277 | 0.50 | 0.85 | 0.60 | 0.85 |
| | | | | | 347 | 0.39 | 0.70 | 0.45 | 0.70 |
| 150HPS E-23½ Clear Mogul Base (AR only) ED-17 Clear Medium Base (SAR only) | 150 | S-55 | 24000 | 16000 | 120 | 1.65 | 2.80 | 2.00 | 2.80 |
| | | | | | 208 | 0.95 | 1.60 | 1.15 | 1.60 |
| | | | | | 240 | 0.83 | 1.40 | 1.00 | 1.40 |
| | | | | | 277 | 0.72 | 1.25 | 0.85 | 1.25 |
| | | | | | 347 | 0.56 | 0.92 | 0.52 | 0.92 |
| 250HPS E-18 Clear Mogul Base (AR only) | 250 | S-50 | 24000 | 29000 | 120 | 2.50 | 1.70 | 1.65 | 2.50 |
| | | | | | 208 | 1.50 | 1.00 | 0.95 | 1.50 |
| | | | | | 240 | 1.30 | 0.85 | 0.80 | 1.30 |
| | | | | | 277 | 1.10 | 0.75 | 0.70 | 1.10 |
| | | | | | 347 | 0.93 | 0.70 | 0.60 | 0.93 |
| 400HPS E-18 Clear Mogul Base (AR only) | 400 | S-51 | 24000 | 51000 | 120 | 3.80 | 2.00 | 3.30 | 3.80 |
| | | | | | 208 | 2.20 | 1.20 | 1.80 | 2.20 |
| | | | | | 240 | 1.90 | 0.95 | 1.50 | 1.90 |
| | | | | | 277 | 1.70 | 0.85 | 1.40 | 1.70 |
| | | | | | 347 | 1.32 | 0.70 | 1.00 | 1.32 |
| 480 | | | | | 480 | 0.63 | 0.45 | 0.40 | 0.63 |
| | | | | | 120 | 0.97 | 0.55 | 0.75 | 0.97 |
| | | | | | 208 | 0.97 | 0.55 | 0.75 | 0.97 |
| | | | | | 240 | 0.97 | 0.55 | 0.75 | 0.97 |
| | | | | | 277 | 0.97 | 0.55 | 0.75 | 0.97 |
| METAL HALIDE | | | | | | | | | |
| 70MH ED-17 Clear Medium Base (SAR only) | 70 | M-98 | 15000 | 5376 | 120 | .85 | 1.90 | .55 | 1.90 |
| | | | | | 208 | .49 | 1.00 | .30 | 1.00 |
| | | | | | 240 | .42 | .90 | .25 | .90 |
| | | | | | 277 | .37 | .80 | .25 | .80 |
| | | | | | 347 | .30 | .65 | .20 | .65 |
| 100MH ED-17 Clear Medium Base (SAR only) | 100 | M-90 | 15000 | 8640 | 120 | 1.15 | 2.60 | 1.15 | 2.60 |
| | | | | | 208 | 0.66 | 1.50 | 0.66 | 1.50 |
| | | | | | 240 | 0.58 | 1.30 | 0.58 | 1.30 |
| | | | | | 277 | 0.50 | 1.15 | 0.50 | 1.15 |
| | | | | | 347 | 0.40 | 1.00 | 0.40 | 1.00 |
| 150MH ED-17 Clear Medium Base (SAR only) | 150 | M-102 | 15000 | 14400 | 120 | 1.60 | 3.65 | 0.95 | 3.65 |
| | | | | | 208 | 0.90 | 2.10 | 0.55 | 2.10 |
| | | | | | 240 | 0.80 | 1.80 | 0.50 | 1.80 |
| | | | | | 277 | 0.70 | 1.58 | 0.42 | 1.58 |
| | | | | | 347 | 0.55 | 1.25 | 0.65 | 1.25 |
| 175MH BT-28 or ED-28 Clear Mogul Base (AR only) ED-17 Clear Medium Base (SAR only) | 175 | M-57 | 10000H | 14400H | 120 | 1.80 | 1.80 | 1.30 | 1.80 |
| | | | | | 208 | 1.04 | 1.04 | 0.75 | 1.04 |
| | | | | | 240 | 0.90 | 0.90 | 0.65 | 0.90 |
| | | | | | 277 | 0.80 | 0.80 | 0.55 | 0.80 |
| | | | | | 347 | 0.65 | 0.65 | 0.50 | 0.65 |
| 250MH BT-28 or ED-28 Clear Mogul Base (AR only) | 250 | M-58 | 10000 | 23000 | 120 | 2.60 | 2.60 | 1.00 | 2.60 |
| | | | | | 208 | 1.50 | 1.50 | 0.60 | 1.50 |
| | | | | | 240 | 1.30 | 1.30 | 0.50 | 1.30 |
| | | | | | 277 | 1.10 | 1.10 | 0.45 | 1.10 |
| | | | | | 347 | 0.90 | 0.75 | 0.80 | 0.90 |
| 480 | | | | | 480 | 0.65 | 0.65 | 0.30 | 0.65 |
| | | | | | 120 | 0.65 | 0.65 | 0.30 | 0.65 |
| | | | | | 208 | 0.65 | 0.65 | 0.30 | 0.65 |
| | | | | | 240 | 0.65 | 0.65 | 0.30 | 0.65 |
| | | | | | 277 | 0.65 | 0.65 | 0.30 | 0.65 |

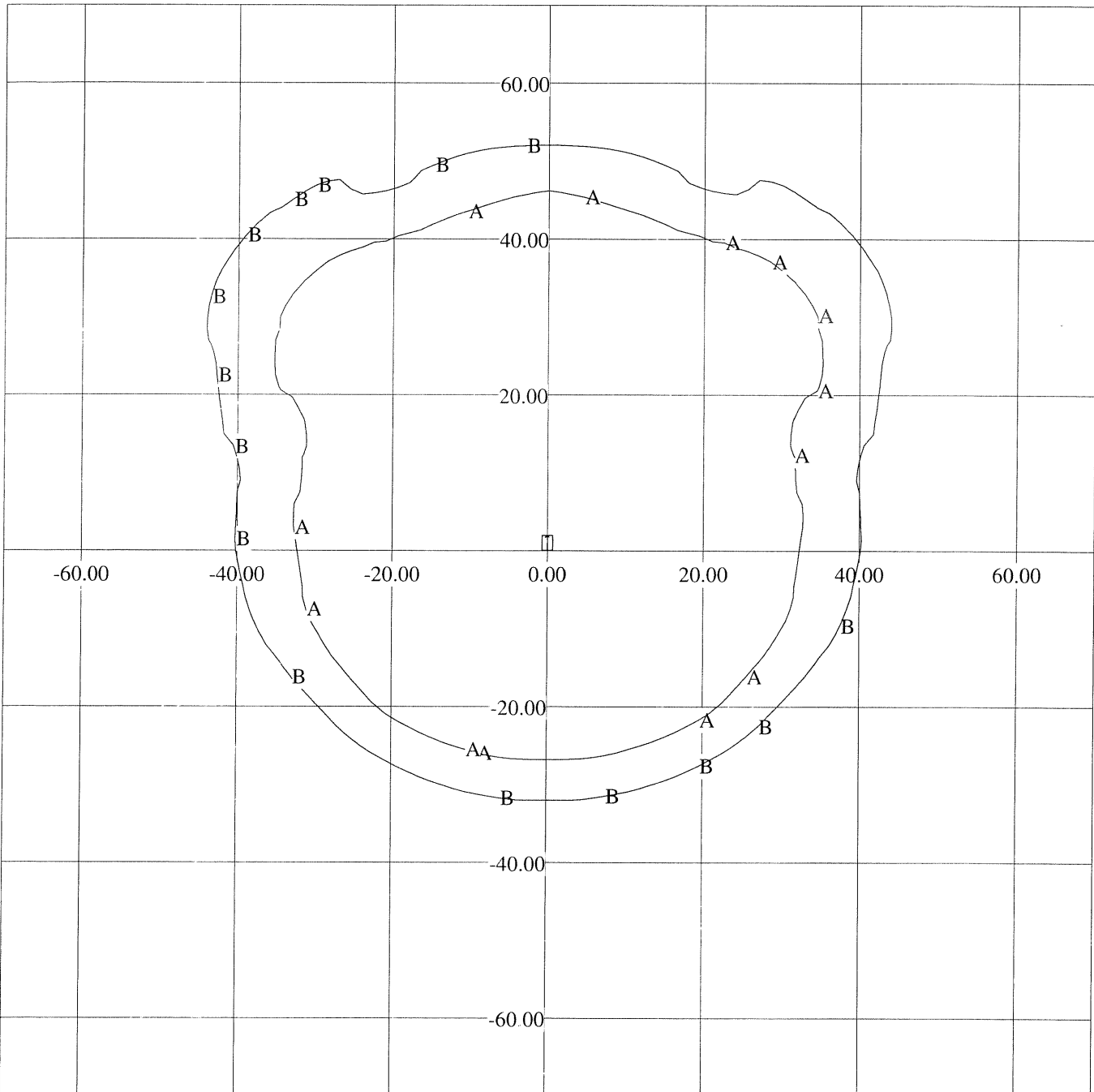
CONTOUR PLOT

Jan 19, 2015

TEST #: ALH4F25S
CATALOG #: AR4/250HPSxxx/xx
LAMP:
TOTAL LUMENS: 28000
LLF: 1.00
ILLUM. UNITS: FC
SCALE: 1 IN= 20.0FT

NUM LUMS/ ORIENTATION: 1 lum
MOUNTING HEIGHT: 15.0'
BRACKET ARM LENGTH: 1.0'

Legend: A=1.00 B=0.50



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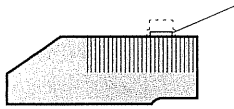


Option Specifications

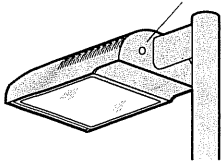
See pages 12-15 for complete ordering information

Photocell Control: Large AR model supplied with a fully gasketed receptacle above the electrical compartment for NEMA base photocell (by others). For all multiple-fixture pole mountings with two or three fixtures, one fixture has a receptacle to operate the others. Four fixtures (250 watt or less) also require one fixture with a receptacle. Four fixtures (400 watt) require two fixtures with receptacles. Small SAR model supplied with an internal photocell with the sensor on the fixture end facing the pole. For multiple-fixture pole mountings, one fixture has a photocell to operate the others. Not available for SAR if wall mounted (1W).

AR photocell receptacle
NEMA base photocell (by others)



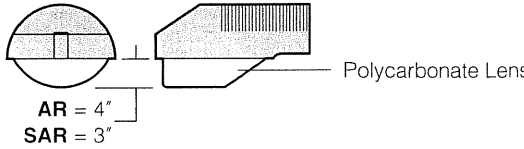
SAR photocell sensor
For pole mounted fixtures only



Convex Glass Lens: The $\frac{3}{16}$ " thick clear convex tempered glass lens replaces the standard flat glass lens. Provides increased lens presence and provides a subtle improvement in uniformity where pole spacing is extreme. Increases effectiveness of houseside shielding.

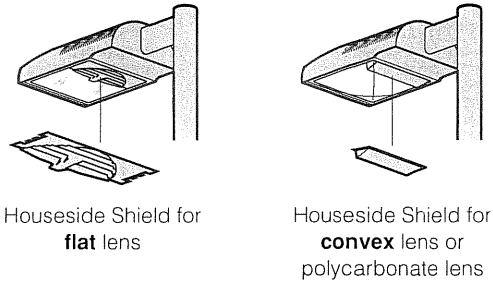


Polycarbonate Lens: One piece vacuum formed, clear, UV stabilized convex polycarbonate, fully gasketed, replacing the standard tempered glass lens. 250 watt maximum in AR model. AR model may be used with 400 watt HPS in outdoor locations where ambient air temperature during fixture operation will not exceed 85°F.

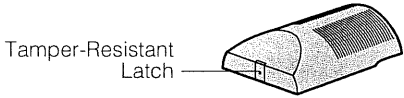


CAUTION: Use only when vandalism is anticipated to be high. Useful life is limited by UV discoloration from sunlight and metal halide lamps.

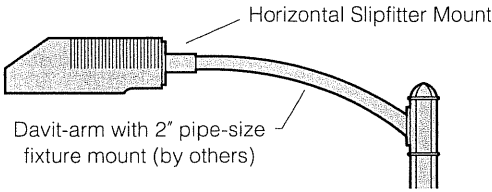
Houseside Shield: (Types II, III, and IV only). Fixtures with the standard flat glass lens are available with stamped aluminum louvers that pass streetside light and block houseside light, and a blackened panel added to the reflector to reduce houseside reflections. Fixtures with the optional convex glass lens are available with a formed aluminum shield that passes streetside light and blocks houseside light, and a black anodized panel added to the reflector to reduce houseside reflections. Use with clear lamps only, as coated lamps reduce effectiveness.



Tamper-Resistant Latch: Standard die-cast latch is provided with a captive 10-32 stainless steel flat socket-head screw to prevent unauthorized opening. Required only for vandal protection in locations where fixtures can be reached by unauthorized persons.



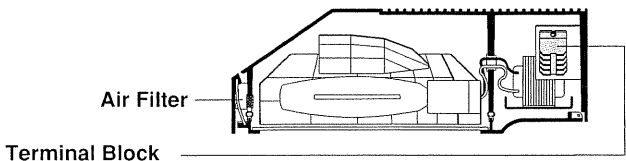
Horizontal Slipfitter Mount: Replaces standard mounting arm with a slipfitter which allows AR or SAR model to be mounted to a horizontal pole davit-arm with 2" pipe-size mounting end (2 3/8" O.D.). Cast aluminum clamp-type slipfitter with set screw anti-rotation lock. Bolts to housing from inside the electrical compartment using mounting holes for the standard support arm. Davit-arm must be field drilled at a set screw location to insure against fixture rotation. Finished to match fixture and arm.



Special Options for Street Lighting

Air Filter: Allows for ventilation through the optical chamber, filtering all air particles above 500 microns. Multi-layer disc assembly mounted on solid wall between optical compartment and latch cavity.

Terminal Block: (For field wire connections in AR model only.) 85AMP, 600V box clamp terminal block mounted to the housing inside the electrical compartment. Accepts #14-4 wire. Factory prewired to electrical module quick-disconnect plug.



Vertical Slipfitter Mounts: Allows AR or SAR model with standard support arm to be mounted to poles having a 2" pipe-size tenon (2 3/8" O.D. x 4 1/2" min. length). All mounting configurations can be used (AR: 1A, 2B, 2L, 3T, 3Y, 4C or SAR: 1SA, 2SB, 2SL, 3ST, 3SY, 4SC). 4" square or round die-cast aluminum with flush cap, secured by four 3/8" stainless steel set point allen screws, finished to match fixture and arm. **NOTE:** 3Y and 3SY only available on round slipfitter.

