<u>Project:</u> Commercial & Maple Street Mixed Use Development

Location: Portland, Maine

<u>Date:</u> 10-22-12 Revised 01-02-13

LIGHTING FIXTURE SCHEDULE

Lamp numbers refer to Osram Sylvania designations. Also approved are equal lamps manufactured by General Electric, and Philips. Voltage for exterior luminaires shall be verified with the project electrical engineer.



<u>Type:</u> **S1**

Description: Street light luminaire and pole as identified by the City of Portland Waterfront

Commercial District large series. Luminaire shall include dropped refractor to provide Type IV optical distribution. Pole shall be tapered steel, 20'-0" in height with a 4'-4" top bracket arm. Luminaire finish shall be black. Provide integral photocell with luminaire.

Lamps: (1) MS175/PS/BU-ONLY

Manufacturers: *Holophane Lighting* # ESU 175PM MA CMA 45-64319 (luminaire)

Holophane Lighting # OUC 6063-T6 (bracket Arm) Holophane Lighting # Cambridge series (pole base)

<u>Type:</u> **S2**

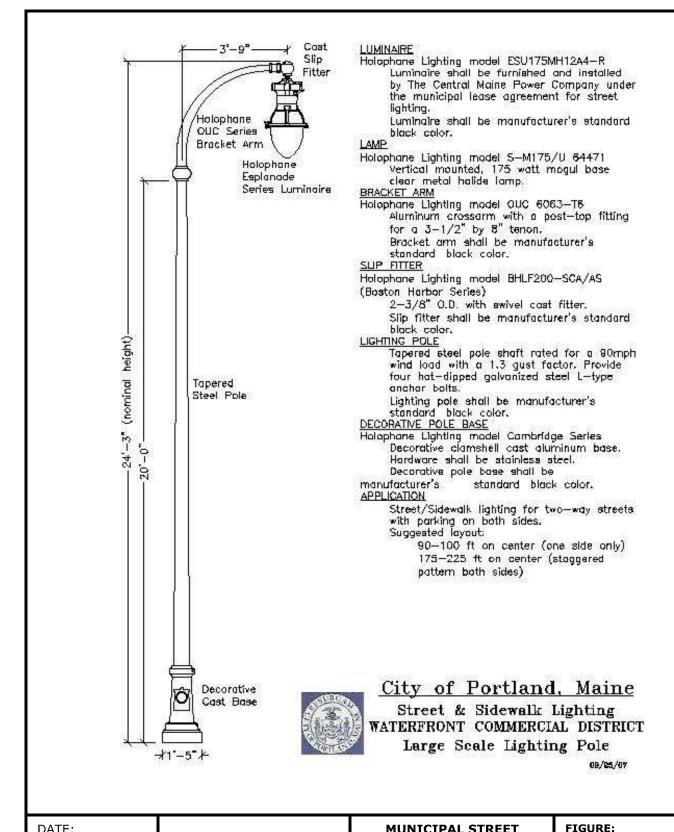
Description: Similar to Type S1 except City of Portland Waterfront Commercial District medium

series. Pole shall be 15'-0" in height.

Lamps: (1) MS175/PS/BU-ONLY

Manufacturers: Holophane Lighting # ESU 175PM MA CMA 45-64319 (luminaire)

Holophane Lighting # OUC 6063-T6 (bracket Arm) Holophane Lighting # Cambridge series (pole base)



DATE: AUGUST 2009

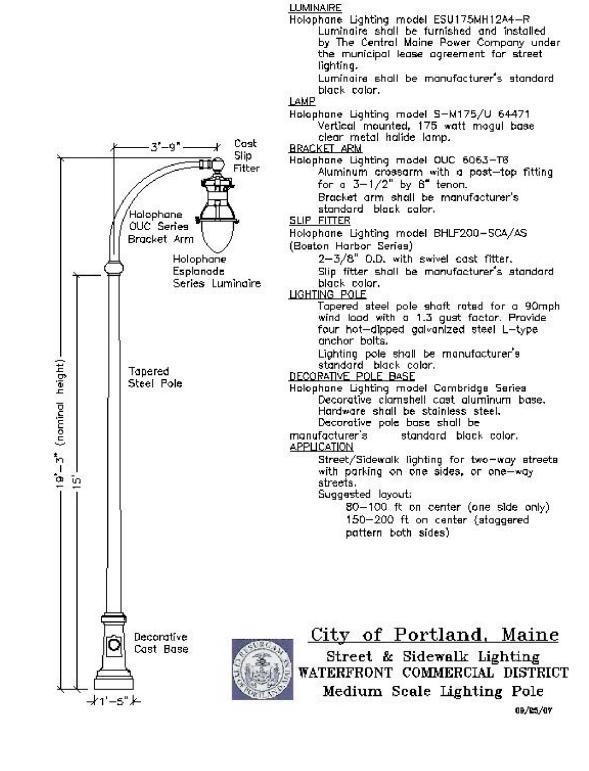
CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL

MUNICIPAL STREET LIGHTING STANDARDS SECTION X

X-5B

REVISED:

EASTERN WATERFRONT DISTRICT LARGE SCALE LIGHTING POLE



DATE: AUGUST 2009

CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL

MUNICIPAL STREET LIGHTING STANDARDS SECTION X

X-5C

FIGURE:

REVISED:

EASTERN WATERFRONT DISTRICT MEDIUM SCALE LIGHTING POLE



Existing light along Foundry Lane



Type S3 & S4

Part of AAL's Designer SSL Series

MicroEmitter® reflector technology

Wall mount=12 feet; Pole mount=14 feet

• 0 - 10v dimming capabilities

Surge protection included

UCM – Universe Medium Housing Scale

precise LED aiming capabilities

• Field replaceable LED EmitterDeck®

TYPE

RESET

 DLC approved (Types 3 and 5, 5000K) upgrade First decorative, modular system with LifeShield 	kits • Powder coat finish in with a polymer primer	
1 LUMINAIRE 2. LUMINOUS 3. ORTICS 4. LAMP/ 5	COLOR 6. HOOD 7 OPTIONS	8. MOUNTING
HOOD S. OF TICS BALLAST S.	OPTIONS 7. STRICKS	
1. LUMINAIRE	5. COLOR	SPECIFICATIONS UCM
UCM Universe medium	☐ AWT (Arctic White) ☐ CRT (Corten) ☐ BLK (Black) ☐ MAL (Matte Aluminum)	HOUSING The fixture ballast housing shall be one-piece die-
2. LUMINOUS /HOOD NO LUMINOUS & HOOD ANGLED BELL FLARED STRAIGHT SKIRTED ANG □ BEL FLR □ STR □ SKB LUMINOUS & HOOD 4 LUMINOUS SOLID VERTICAL LUMINOUS WINDOWS RINGS SLOTS RINGS □ WND-ANG □ SR-ANG □ VSL-ANG □ LUM-ANG □ WND-BEL □ SR-BEL □ VSL-BEL □ LUM-BEL X WND-FLR □ SR-FLR □ VSL-FLR □ LUM-FLR □ WND-SKB □ SR-SKB □ VSL-SKB □ LUM-SKB	MTB (Matte Black)	cast aluminum. The luminous rings shall be clear acrylic with an internal lens. The lens shall be lightly diffused acrylic, sealed to the housing and shade with molded silicone gaskets. The hood and spacers shall be heavy gauge spun aluminum with hemmed edges for added rigidity. All internal and external hardware shall be stainless steel. The fixture shall consist of die cast aluminum door frame and ring assembly. The hood ring assembly shall be fully sealed with a molded silicone gasket. The door frame shall be hinged to the ring and opened with two captive fasteners for relamping. The tempered sag glass lens is held in the door
3. OPTICS LED (60 light emitting diode array. 72 watts. Class 1, 120 thru 277 volt. Warm white (3000K), Neutral white (4000K), Bright white (5000K)) □ T2-60LED-WW □ T4-60LED-WW □ T2-60LED-BW □ T4-60LED-BW □ T3-60LED-BW □ T5-60LED-WW □ T3-60LED-WW □ T5-60LED-WW □ T3-60LED-BW □ T5-60LED-WW □ T3-60LED-BW* □ T5-60LED-BW* * DLC Listed HORIZONTAL REFLECTOR (sag lens) □ H2 (Type 2) □ H3 (Type 3) □ H4 (Type 4) □ H5 (Type 5) GLASS REFLECTOR □ GR3 (Type 3) □ GR5 (Type 5) OPAL LENS (Acrylic. Maximum 100 watts)	FTG (Flat glass lens)	frame with a molded silicone gasket. GR3/5 – A borosilicate glass refractor lens with a Type 3 or Type 5 distribution shall be attached to an aluminum frame. Three captive fasteners shall be loosened to turn and remove the lens for relamping. OAL – Molded opal acrylic lens and an aluminum frame. Three captive fasteners shall be loosened to turn and remove the lens for relamping. FULL CUTOFF (Horizontal only) The reflector models, less luminous element, is classified as full cutoff, meaning there is zero light emitted at 90° horizontal or above. OPTICAL ASSEMBLY (Horizontal only) The reflector module shall be composed of faceted, semi specular anodized aluminum panels
4. LAMP/BALLAST COMPACT FLUORESCENT GE F70@BX lamp10°C min start temp PL57 METAL HALIDE. Medium base, ED-17 lamp 50MH	WALL MOUNT WMA4	rigidly attached in an aluminum tray. The reflector shall be easily removed by loosening four screws and lifting it out the tray. The reflector tray shall be rotatable on 90° centers for orienting the light distribution. The reflectors shall meet ANSI-IES standards for full cutoff (without luminous element). See next page TYPE JOB NOTES NOTES



ELECTRICAL

LED MODEL

120 thru 277 volt. All electrical components are mounted directly to the driver tray for maximum heat dissipation. Class 1 electrical classification. 0 - 10v dimming capabilities. LifeShield™ Protection System included for extreme temperature locations (-30°C to 60°C). 120/277 volt Universal with 9mA maximum input current and 1mA maximum drive current. Input power 0.5 watt for 120 volt and 1.25 watt for 277 volt. The onboard surge protector shall be U.L. recognized and have a surge current rating of 10,000 Amps using the industry standard 8/20uSec wave. The surge protector shall have a clamping voltage of 320V and surge rating of 372J. The case shall be a high-temperature, flame resistant plastic enclosure. LED constant current driver operates at 350mA.

OTHER MODELS

The ballast shall be mounted on a prewired tray with a quick disconnect plug and removed by loosening two captive screws. HID ballasts are high power factor, rated for -30°C starting. Sockets are medium or G12 base, pulse rated porcelain. Ballasts are wired at the factory for 277 volts,

MICROEMITTER™ REFLECTOR

Precision injection molded, highly specular reflectors are positioned to achieve directional control toward desired task. Secondary reflectors with a concave, specular medium hammertone finish are used to redirect light downward. The entire assembly fastens to the housing as a one-piece module and features wiring quick-connects for easy installation. Standard color temperatures are 3000K, 4000K and 5000K. Rated luminous efficacy is ≥40 lm/W, with rated light output of ≥2864 for 5000K LED, standard mount. MicroEmitters are field replaceable.

MOUNTING

The fixture shall be attached to the arm assembly with three stainless steel bolts. The connection shall be sealed with a silicone compression gasket.

PM – The post top version shall slip over a 4*/100mm O.D. pole or tenon, and secured with six stainless steel set

FINISH

Fixture finish consists of a five stage pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish. The finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance.

CERTIFICATION

Listed with ETL for outdoor, wet location use. Conforms to UL1598 and Canadian CSA Std. C22.2 no.250 standard.

WARRANTY

Universe LED, including housing, LEDs and electrical components, is warranted for five years, other fixtures are three years. Any unauthorized return, repair, replacement or modification of the Product(s) shall void this warranty. This warranty applies only to the use of the Product(s) as intended by AAL and does not cover poles, arms, mounting, or any misapplication or misuse of said Product(s), or installation in hazardous or corrosive environments. Contact AAL for complete warranty language, exceptions, and limitations.

DIMENSIONS

The first dimension is the height of fixtures with LEDs or horizontal reflectors. The second is for the opal lens and the third is the glass refractor fixture.

		is for the oparions and			
HOOD	NO LUMINOUS	4 LUMIOUS WINDOW (WIN)	SOLID RINGS (SR)	VERTICAL SLOTS (VSL)	LUMIOUS RINGS (LUM)
ANG					
DIA: 20"/508mm	14.7"/373mm 18"/457mm 16.7"/424mm	20.5"/520mm 22.2"/563mm 20.8"/528mm	20.7"/526mm 22.5"/572mm 21.1"/536mm	20.5"/521mm 22.2"/564mm 20.8"/528mm	20.6"/523mm 22.4"/569mm 21"/533mm
BEL					
DIA: 24"/610mm	15.8"/401mm 18"/457mm 16.7"/424mm	21.4"/543mm 22.2"/563mm 20.8"/528mm	21.6"/549mm 22.5"/572mm 21.1"/536mm	21.4"/543mm 22.2"/564mm 20.8"/528mm	21.5"/546mm 22.4"/569mm 21"/533mm
FLR					
DIA: 22"/559mm	14.5"/368mm 18.1"/435mm 16.8"/427mm	19.8"/503mm 22.3"/566mm 21"/533mm	20.1"/510mm 22.6"/574mm 21.2"/538mm	19.8"/503mm 22.3"/566mm 21"/533mm	20"/508mm 22.5"/574mm 21.1"/536mm
STR	141/055	10.04/500	20"/508mm	19.8°/503mm	10.01/505
DIA: 24"/610mm	14"/355mm 18.1"/435mm 16.7"/424mm	19.8"/503mm 22.3"/566mm 20.9"/531mm	20 /50811111 22.5"/574mm 21.2"/538mm	22.3"/566mm 20.9"/531mm	19.9"/505mm 22.5"/574mm 21.1"/536mm
SKB	19.7"/500mm	23.9"/607mm	24.2"/615mm	23.9*/607mm	24.1"/612mm
DIA: 24"/610mm	19.7"/500mm 19.7"/500mm	23.9"/607mm 23.9"/607mm	24.2"/615mm 24.2"/615mm	23.9"/607mm 23.9"/607mm	24.1"/612mm 24.1"/612mm

UCM H3 150MH FTG WATTAGE: 185 LUMEN OUTPUT: 7192

B2 U0 G2 LUMEN FORWARD LIGHT 4.6% 30° 577 FM 60° 16.2% 2026 14.8% FΗ 80° 1850 0.2% FVH 90° 30 **BACK LIGHT** 3.9% BL 30° 491 11.7% BM 60° 1469 80° 5.9% 738 ВН 0.1% 90° BVH 11 UPLIGHT 0% UI 100° 0 20' MOUNTING HEIGHT UΗ 180° 0% 0

10 4.000 15 1.778 20 1.000 25 0.640 30 0.444 35 0.327 40 0.250 45 0.198 50 0.160 UPLIGHT 0% DOWNLIGHT 100%

EFFICACY: 57.6

Mounting

EFFICACY: 67.6

Multiplier

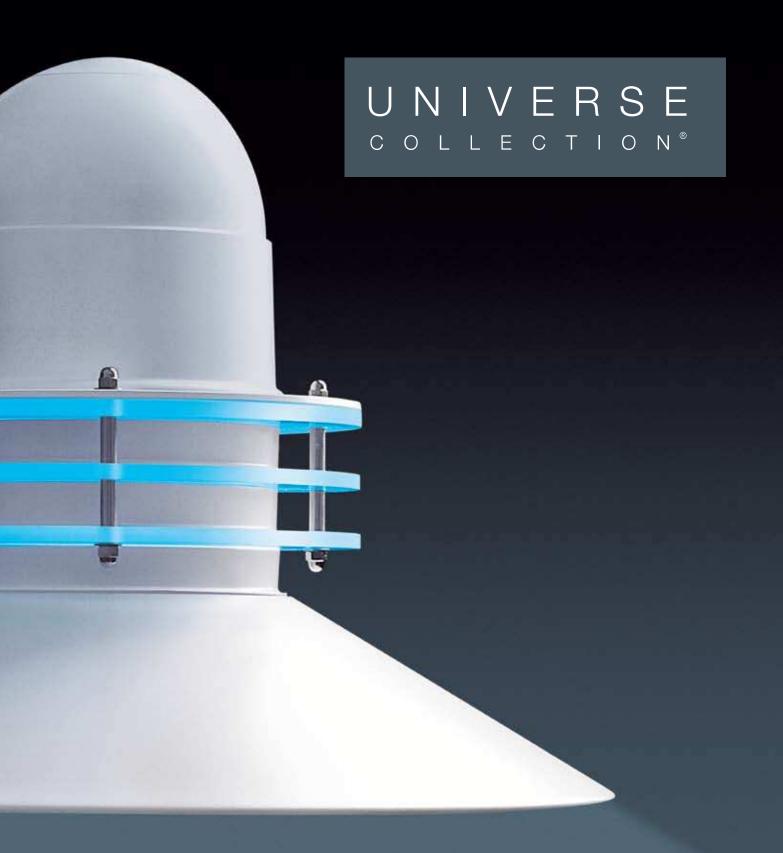
UCM T5 60LED BW FTG WATTAGE: 64.7 LUMEN OUTPUT: 3726

B2 U0	G1 BD LIGHT	LUMEN	Mounting Height Multiplier
FL FM FH FVH	30° 8.0% 60° 18.4% 80° 22.1% 90° 1.7%	298 686 823 63	0.02 0.05 0.1 10 15 1.778 20 1.000 25 0.640 30 0.444
BACK L BL BM BH BVH		295 663 826 71	35 0.327 40 0.250 45 0.160 0.2 UPLIGHT 0% DOWNLIGHT 100%
UPLIGH UL UH	HT 100° 0% 180° 0%	0	20' MOUNTING HEIGHT

IES files can be found at www.aal.net

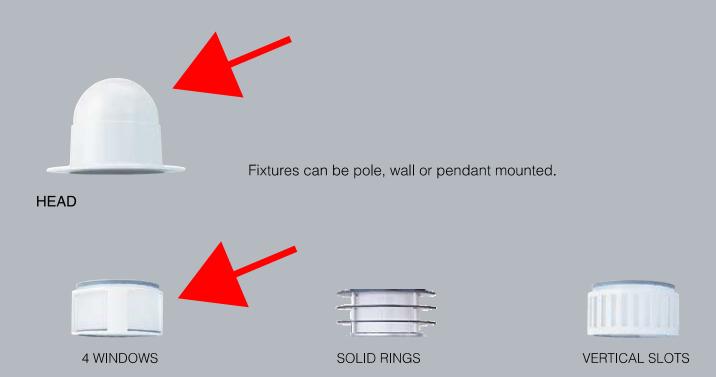
AAL reserves the right to change product specifications without notice.







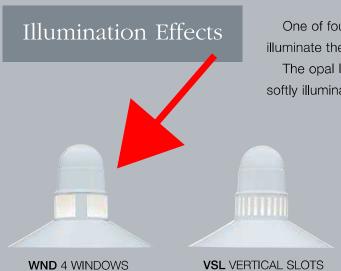
ARCHITECTURAL AREA LIGHTING



LUMINOUS ELEMENTS Optional elements to add visibility and interest to fixtures.



UNIVERSE COLLECTION®



One of four modular, luminous elements can be specified to softly illuminate the shade and add visual interest to the overall design.

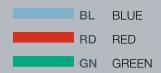
The opal lens model (OAL) is well suited for low mounting heights to softly illuminate general pedestrian areas.



SR SOLID RINGS

LUM LUMINOUS RINGS

The luminous ring (LUM) comes standard with a diffused inner lens. An optional colored lens adds edge lit color to the rings when illuminated. Not available with UCS.



UCM LUM (BLUE) STR OAL SLA 4 PR4-4R10



UCM LUM STR OAL SLA 17 PR4-4R8





The medium scaled model is designed for pedestrian areas, building perimeters, streetscapes, store fronts, or atriums

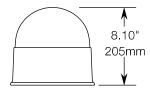
- Part of AAL's Designer SSL Series, featuring exclusive MicroEmitter technology
- Pole, wall, and pendant mounting
- Full cutoff reflector system in four distributions for specific illumination tasks
- Opal acrylic lens, Type 5 distribution for soft, general lighting, 100 watts max
- Glass refractor lens, Type 3 or 5 distribution for general lighting
- 50, 70,100, or 150 watt metal halide, including pulse start
- 50, 70, 100, or 150 watt high pressure sodium
- IL-55 and IL-85 induction lamp system



UCM MEDIUM SCALE

HOW TO ORDER

Start with the Universe Medium head.



- Select a luminous element if desired
- Select a hood style
- Choose the optical assembly for your application
- 4 Select a lamp/ballast
- Specify a standard or premium

 AAL color, RAL color, or custom

 color (sample color chip required

 at time of ordering)
- 6 Choose any desired hood finish
- 7 Choose any other options
- 8 Select mounting



UCM LUM SKB H3



UCM VSL STR

Ordering Examples

LUMINAIRE	LUMINOUS ELEMENT	LAMP HOOD	HOOD OPTICS	BALLAST	COLOR	FINISH	OPTIONS	ARM
UCM	LUM	BEL	Т3	60LED-BW	BLK	COP	FLD	SLA20A
UCM	SR	ANG	GR5	50MH	MAL	-	-	WMA8
UCM	VSL	STR	H5	150PSMH	CTR	-	-	PM
UCM	WND	FLR	OAL	IL-85	AWT	STS	-	SLA17

Weight: 34 lbs. EPA: 1.14 IP RATING: 65

Luminous Element

WND 4 WINDOWS

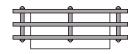




Cast frame with a diffused acrylic lens

8.75"/225mm diameter 4.17"/105mm high

SR SOLID RINGS



Cast rings with a diffused acrylic lens

12"/305mm diameter 4.4"/110mm high

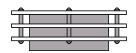
VSL VERTICAL SLOTS



Cast frame with a diffused acrylic lens

8.75"/225mm diameter 4.17"/105mm high

LUM LUMINOUS RINGS



Edge lit acrylic rings with a diffused inner acrylic lens

12"/305mm diameter 4.4"/110mm high

OPTIONAL LUMINOUS RING COLORS

An internal lens can be added for color on the ring edges when illuminated.

BL BLUE
RD RED

GRN GREEN



2 Hood

ANG ANGLED HOOD



20"/508mm diameter 6.5"/165mm high

BEL BELL HOOD



24"/610mm diameter 8"/205mm high

FLR FLARED HOOD

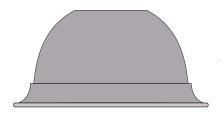


22"/560mm diameter 6"/150mm high

R STRAIGHT HOOD



SKB SKIRTED BELL HOOD

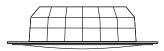


24"/610mm diameter 11.75"/300mm high

3 Optics

Horizontal Reflector

H2 IES Type 2 reflector
H3 IES Type 3 reflector
H4 IES Type 4 reflector
H5 IES Type 5 reflector



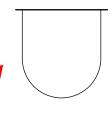
Reflector with cast door and standard sag glass lens

LED

T2 IES Type 2 distribution
T3 IES Type 3 distribution
T4 IES Type 4 distribution
T5 IES Type 5 distribution

Standard sag glass lens

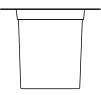
Opal Acrylic Lens - OAL



8"/205mm diameter 9"/230mm high *Maximum 100 watts HID Not available with LED*

Glass Refractor

GR3 Type 3 Glass refractorGR5 Type 5 Glass refractor



6.5"/165mm diameter 6"/150mm high **Not available with LED**

4 Lamp/Ballast

60LED-WW

60 light emitting diode array (70 total luminaire input watts). Warm white (3500K). 120 thru 277 volt.

60LED-BW

60 light emitting diode array (70 total luminaire input watts). Bright white (5100K). 120 thru 277 volt.

PL57

57 watt compact fluorescent 120 thru 277 volt ballast. Use GE F57QBX lamp. -10°C minimum start temp.

50MH

50 watt metal halide 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.

70MH

70 watt metal halide 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.

70MHEB

70 watt electronic metal halide 120 thru 277 volt ballast. Use medium base, ED-17 lamp.

70MHT6

70 watt electronic metal halide 120/277/347 volt ballast. Use G12 base, T-6 ceramic lamp.

70MHT6EB

70 watt metal halide 120 thru 277 volt ballast. Use G12 base, T-6 ceramic lamp.

100MH

100 watt metal halide 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.

100MHEB

100 watt electronic metal halide 120 thru 277 volt ballast. Use medium base, ED-17 lamp.

150MHEB

150 watt electronic metal halide 120 thru 277 volt ballast. Use medium base, ED-17 lamp.

150PSMH

Pulse start 150 watt metal halide 120/208/240/277 volt ballast. Use medium base, ED-17 lamp. **Not for OAL.**

150PSMHT6

Pulse start 150 watt metal halide 120/208/240/277 volt ballast. Use G12 base, T-6 ceramic lamp. **Not for OAL.**

150MHT6EB

150 watt electronic metal halide 120 thru 277 volt ballast. Use G12 base, T-6 ceramic lamp. **Not for OAL.**

175PSMH

Pulse start 175 watt metal halide 120/208/240/277 volt ballast. Use medium base, ED-17 lamp. For GR3/GR5 only.

50HPS

50 watt high pressure sodium 120/277 volt ballast. Use medium base, ED-17 lamp.

70HPS

70 watt high pressure sodium 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.

100HPS

100 watt high pressure sodium 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.

150HPS

150 watt high pressure sodium 120/208/240/277 volt ballast. Use medium base, ED-17 lamp. Not for OAL.

IL-55

55 watt induction lamp system with high frequency generator. Specify 120, 208, 240 or 277 volt ballast. -25°C start temp. **OAL only. Less luminous elements.**

L-85

85 watt induction lamp system with high frequency generator. Specify 120, 208, 240 or 277 volt ballast. -25°C start temp. **0AL only. Less luminous elements.**

All ballasts and LED drivers are factory wired for 277 volts, unless specified. Lamps not included (except IL and LED options). All applicable ballasts are EISA compliant.

5 Color

All standard and premium AAL colors available. For RAL and custom colors, please submit a four-digit RAL number or color chip for custom colors.

6 Hood Finishes

The natural copper and stainless steel hoods are unfinished to develop a patina over time. All hoods have the underside finished in high reflectance white.



STS Stainless steel



COP Natural Copper

7 Options

QRS

Restrike controller and T-4 mini-can socket. Not required with electronic ballast. (Lamp wattage not to exceed ballast wattage). Horizontal reflectors only. **Not available with LED.**

QL

Socket for T-4 mini-can lamp, field wired to a separate circuit. (Lamp wattage not to exceed ballast wattage). Horizontal reflectors only. **Not available with LED.**

347

120/240/347 volt ballast for HID lamp/ballast. 347 volt only for 50 watt MH and 50 watt HPS. **Not available with LED.**

SLC

Internal sleeve to block light from the lens when a Luminous Element is chosen.

HSS

House side shield, factory installed. Not available with Type 5 or LED.

FTG

Flat glass lens instead of standard sag glass. Reflector and LED models only.

FLD

Lightly diffused finish on flat glass lens. Reflector models only. Not available with LED.

BCK

Rock guard painted black, attached to door frame. Not for PMR.

8 Mounting

РМ

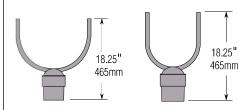
Post top yoke mount for use with the OAL or GR3/5 optics. Slips over a 4"/100mm pole. Secured with 6 stainless steel set screws.

PMR

Post top yoke mount for use with reflector and LED optics. Slips over a 4"/100mm pole. Secured with 6 stainless steel set screws.

PMS

Pendant mount with 48"/1220 mm and canopy with swivel. Stem and canopy painted to match the fixture.



Specifications

UCM and UCL

HOUSING

The fixture ballast housing shall be one-piece die-cast aluminum. The luminous elements shall be cast aluminum with an internal lens that is lightly diffused molded acrylic, sealed to the housing and shade with molded silicone gaskets. The hoods shall be heavy gauge spun aluminum with hemmed edges for added rigidity. All internal and external hardware shall be stainless steel

Reflector and UCM LED models—Shall consist of a die-cast aluminum door frame and ring assembly. The hood ring assembly shall be fully sealed with a molded silicone gasket. The door frame shall be hinged to the ring and opened with tool-less, captive fasteners for relamping. The tempered glass lens is held in the door frame with a molded silicone gasket. For UCM standard lens is sag. For UCL standard lens is flat.

Opal acrylic lens (OAL)—The UCM and UCL shall consist of a molded opal acrylic lens and an aluminum frame. Three captive fasteners shall be loosened to turn and remove the lens for relamping. Not available with LED.

Glass Refractor (GR3 and GR5)–*UCM only*. A borosilicate glass refractor lens with a Type 3 or Type 5 distribution shall be attached to an aluminum frame. Three captive fasteners shall be loosened to turn and remove the lens for relamping. Not available with LED.

OPTICAL ASSEMBLY FOR REFLECTORS

The reflector module shall be composed of faceted, semi specular anodized aluminum panels rigidly attached in a diecast aluminum tray. The reflector shall have tool-less removal and retained by four pressure clips. The reflector tray shall be rotatable on 90° centers for orienting the light distribution. The reflectors shall meet ANSI-IES standards for full cutoff reflector systems.

MICROEMITTER ASSEMBLY FOR UCM LED

Precision injection molded, highly specular reflectors are positioned to achieve directional control toward desired task. Secondary reflectors with a concave, specular medium hammertone finish are used to redirect light downward. No fasteners are placed on the reflective surface. The entire assembly fastens to the housing as a one-piece module and features wiring quick-connects for easy installation. Standard color temperatures are 3500K and 5100K. Other color temperatures available. Please contact factory. MicroEmitters are individually field replaceable.

FULL CUTOFF

The UCM and UCL reflector models, less luminous element, are classified as full cutoff, meaning there is zero light emitted at 90° horizontal or above.

ELECTRICAL

The ballast shall be mounted on a prewired tray with a quick disconnect plug and removed by turning two captive latches. HID ballasts are high power factor, rated for -30°C starting. Electronic ballasts for the UCM (70 or 150 watts) are sound rated A. Sockets are medium base (UCM), G12 for use with T6 lamp (UCM), or mogul base (UCL), pulse rated porcelain. Compact fluorescent sockets for a 26, 32, 42 watt lamp are 4 pin, GX24q-4, with an electronic ballast, -18°C starting. High output fluorescent lamps shall be powered by electronic ballast and shall be rated for a minimum starting temperature of -10 C. Ballasts are wired at the factory for 277 volts, unless specified.

For UCM LED, all electrical components are mounted directly to the driver tray for maximum heat dissipation. 120 thru 277 volt. The LED constant current driver operates at 350mA.

UPGRADE KITS

Field replaceable upgrade kits are available for UCM-H reflector models only. An entire EmitterDeck assembly, including drivers and 20 LED MicroEmitters (60 diodes), is provided. See installation instructions for complete details.

INSTALLATION & MOUNTING

The fixture shall be attached to the arm assembly with three stainless steel bolts. The connection shall be sealed with a silicone compression gasket. The post top (PM) version shall slip over a 4"/100mm pole or tenon, and secured with six stainless steel set screws.

FINISH

Fixture finish consists of a five stage pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish. The finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance.

CERTIFICATION

The fixture shall be listed with ETL and U.L. for outdoor, wet location use, UL1598 and Canadian CSA Std. C22.2 no. 250. IP=65.

EISA COMPLIANCE

AAL is committed to complying with U.S. EISA requirements. All applicable products manufactured for sale in the United States after January 1, 2009, meet EISA requirements

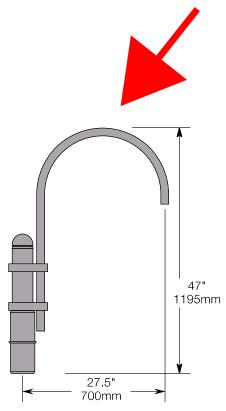
WARRANTY

Fixture is warranted for three years, except UCM LED, which carries a 5 year warranty. Ballast components carry the ballast manufacturer's limited warranty. Any unauthorized return, repair, replacement or modification of the Product(s) shall void this warranty. This warranty applies only to the use of the Product(s) as intended by AAL and does not cover any misapplication or misuse of said Product(s), or installation in hazardous or corrosive environments. Contact AAL for complete warranty language, exceptions, and limitations.

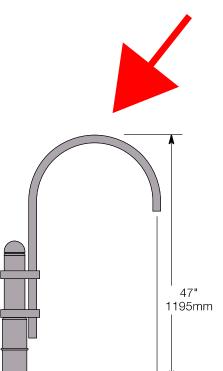
UNIVERSE COLLECTION®

POLE MOUNTED ARMS

All arms are unitized, one-piece assemblies, prewired at the factory for easy, trouble-free installation.

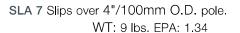


SLA 4 Slips over 4"/100mm O.D. pole. WT: 14 lbs. EPA: 1.39



54"/1375mm

56.5"/1435mm*

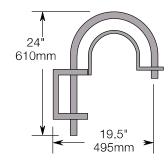


24"/610mm

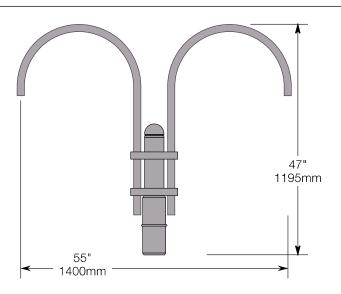
30"/765mm

*SLA 7(5) Slips over 5"/127mm O.D. pole.

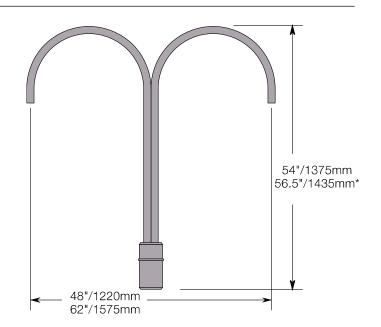
WT: 11 lbs. EPA: 1.73



SLA 3 Bolts to 4"/100mm O.D. pole WT: 8 lbs. EPA: .77



SLA 4-2 Twin arms, slips over 4"/100mm O.D. pole. WT: 26 lbs. EPA: 2.10



SLA 7-2 Twin arms, slips over 4"/100mm O.D. pole. WT: 16 lbs. EPA: 2.34

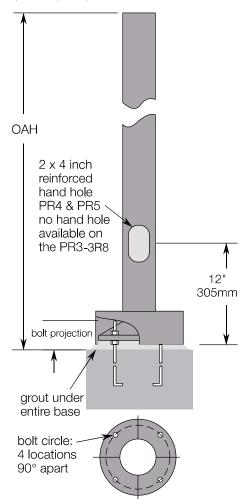
*SLA 7(5)-2 Twin arms, slips over 5"/127mm O.D. pole. WT: 18 lbs. EPA: 2.60

ARCHITECTURAL AREA LIGHTING

ROUND ALUMINUM POLES

AAL poles feature American made heat strengthened A356 aluminum castings and 6061 T-6 aluminum extrusions. The hand holes on the four and five inch poles are reinforced for maximum strength to withstand loads from luminaires, arms and banners.

The load values are based on the AASHTO wind load standards. The wind speeds are based on 3 second gust speeds (MPH).



WARNING: Fixture must be grounded in accordance with local codes or the National Electric Code. Failure to do so may result in serious personal injury.

CAUTION: Poles should never be erected without the luminaire installed. Warranty is voided if the pole is erected without the luminaire.

Decorative poles are found on page 48-49

NOTE: Adequate drainage must be provided in concrete foundation or in the grout.

3" Round Aluminum Pole for UCS only

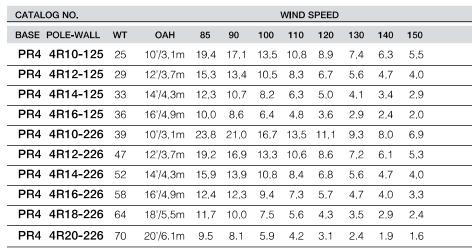
CATALOG NO.	WIND SPEED										
BASE POLE-WALL	WT	OAH	85	90	100	110	120	130	140	150	
PR3 3R8-125	15	8'/2.4m	11.9	10.5	8.3	6.7	5.5	4.5	3.7	3.1	
PR3 3R10-125	18	10'/3.1m	8.9	7.8	6.1	4.8	3.8	3.1	2.5	2.0	

Bolt circle: 7"/180mm

Base diameter: 9"/230mm Bolts .75" X 24 in (19mm X 610mm)

Bolt projection: 3.50"/89mm

4" Round Aluminum Pole



Bolt circle: 7"/180mm

Base diameter: 9"/230mm Bolts .75" X 24 in (19mm X 610mm)

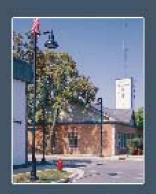
Bolt projection: 3.75"/95mm

5" Round Aluminum Pole

CATALOG NO.						WIND S	SPEED				
BASE POLE-WALL	WT	OAH	85	90	100	110	120	130	140	150	
PR5 5R14-188	67	14'/4.3m	32.3	28.5	22.7	18.6	15.5	13.1	11.2	9.6	
PR5 5R16-188	74	16'/4.9m	27.3	23.9	19.0	15.5	12.8	10.8	9.2	7.9	
PR5 5R18-188	81	18'/5.5m	22.8	19.8	15.6	12.7	10.5	8.8	7.4	6.4	
PR5 5R20-188	87	20'/6.1m	18.9	16.4	12.8	10.3	8.5	7.0	5.9	5.0	
PR5 5R22-188	93	22'/6.8m	15.8	13.5	10.4	8.3	6.8	5.6	4.7	3.9	
PR5 5R24-188	99	24'/7.4m	13.1	11.1	8.4	6.6	5.3	4.3	3.6	3.0	
PR5 5R25-188	102	25'/7.7m	11.9	10.0	7.5	5.9	4.7	3.8	3.1	2.5	
PR5 5R14-250	82	14'/4.3m	35.7	31.5	25.2	20.6	17.2	14.5	12.4	10.7	
PR5 5R16-250	91	16'/4.9m	30.5	26.8	21.3	17.4	14.5	12.2	10.4	9.0	
PR5 5R18-250	99	18'/5.5m	25.8	22.5	17.8	14.5	12.0	10.1	8.6	7.3	
PR5 5R20-250	108	20'/6.2m	21.8	18.9	14.8	12.0	9.9	8.3	7.0	6.0	
PR5 5R22-250	117	22'/6.8m	18.5	15.9	12.4	9.9	8.1	6.7	5.7	4.8	
PR5 5R24-250	126	24'/7.4m	15.7	13.4	10.3	8.2	6.6	5.5	4.5	3.8	
PR5 5R25-250	131	25'/7.7m	14.5	12.3	9.3	7.4	6.0	4.9	4.0	3.4	

Bolt circle: 10"/255mm
Base diameter: 12.5"/320mm

Bolts: .75" X 24" (19mm X 610mm) Bolt projection: 4.75"/120mm













For more information on any of AAL's LED products, please visit us at www.aal.net/aal/univ110.html

The Universe® is a registered trademark of Architectural Area Lighting and Hubbell Lighting, Inc.

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