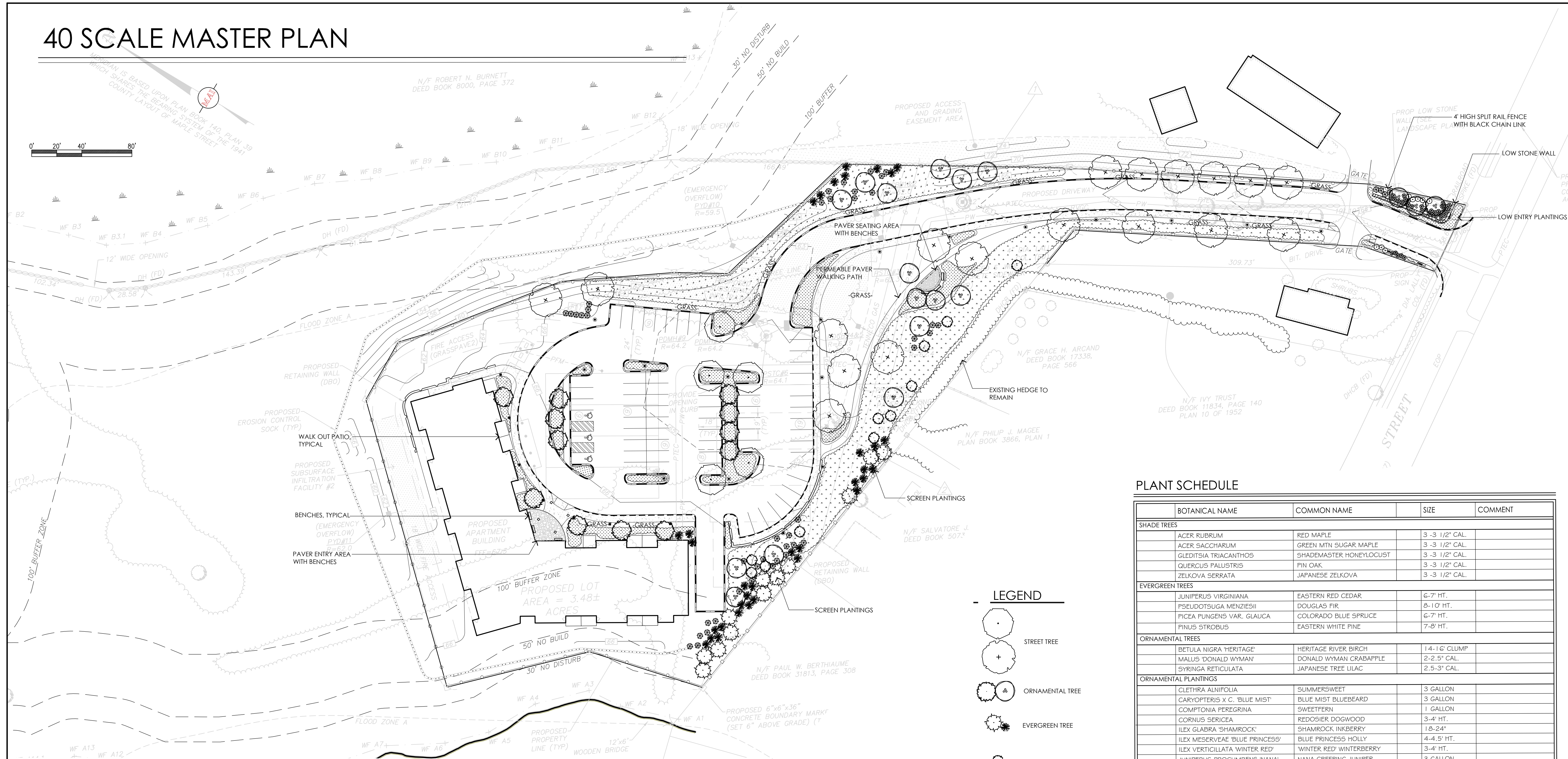
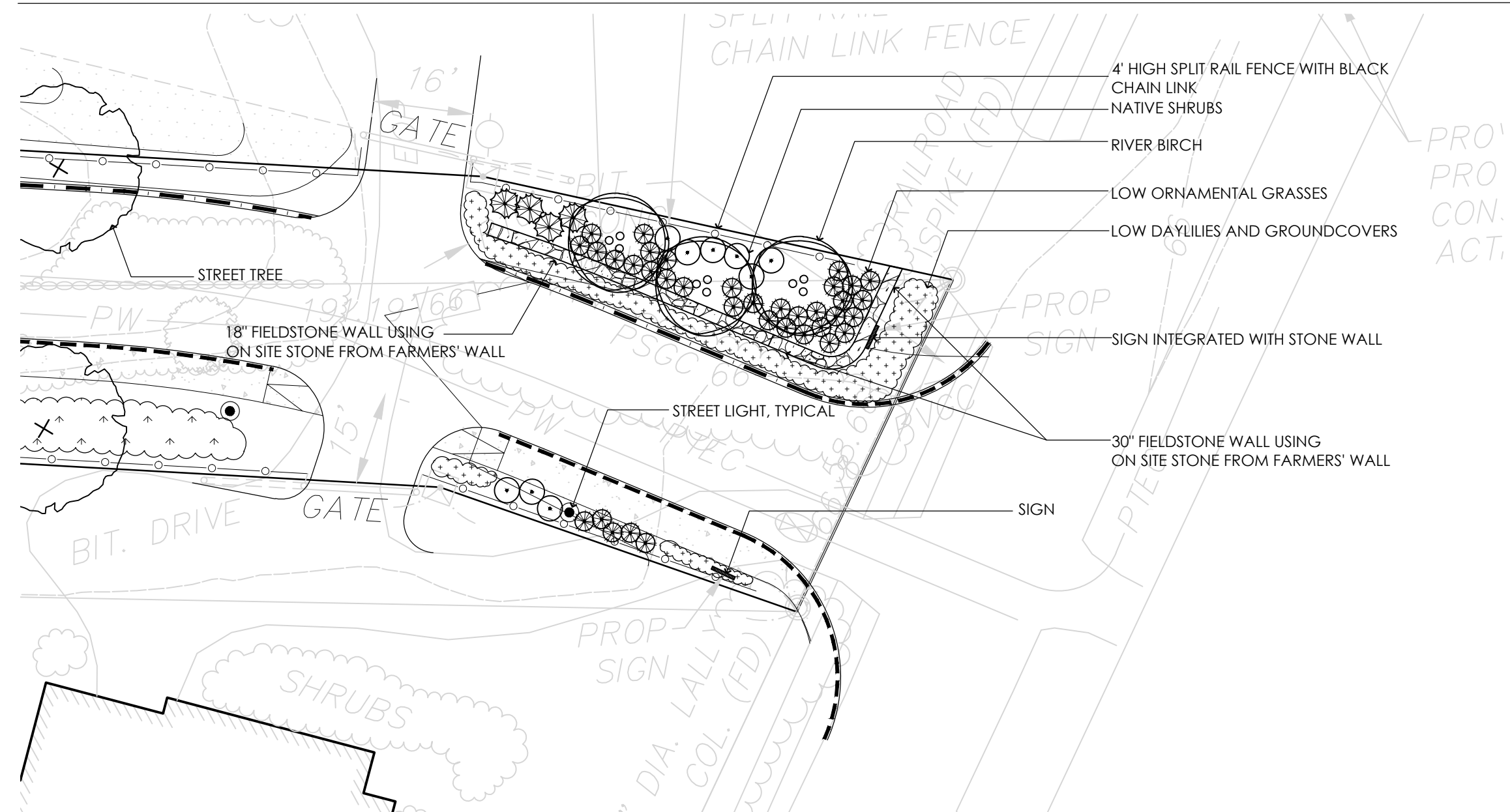


40 SCALE MASTER PLAN



20 SCALE ENTRY ENLARGEMENT PLAN



PLANT SCHEDULE

	BOTANICAL NAME	COMMON NAME	SIZE	COMMENT
SHADE TREES				
	ACER RUBRUM	RED MAPLE	3 - 3 1/2" CAL.	
	ACER SACCHARUM	GREEN MTN SUGAR MAPLE	3 - 3 1/2" CAL.	
	GLEDITSIA TRIACANTHOS	SHADEMASTER HONEYLOCUST	3 - 3 1/2" CAL.	
	QUERCUS PALUSTRIS	PIN OAK	3 - 3 1/2" CAL.	
	ZELKOVA SERRATA	JAPANESE ZELKOVA	3 - 3 1/2" CAL.	
EVERGREEN TREES				
	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	6-7' HT.	
	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	8-10' HT.	
	PICEA FUNGENS VAR. GLAUCA	COLORADO BLUE SPRUCE	6-7' HT.	
	PINUS STROBUS	EASTERN WHITE PINE	7-8' HT.	
ORNAMENTAL TREES				
	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH	14-16' CLUMP	
	MALLUS 'DONALD WYMAN'	DONALD WYMAN CRABAPPLE	2-2.5' CAL.	
	SYRINGA RETICULATA	JAPANESE TREE LILAC	2.5-3" CAL.	
ORNAMENTAL PLANTINGS				
	CLETHRA ALNIFOLIA	SUMMERSWEET	3 GALLON	
	CARYOPTERIS X C. 'BLUE MIST'	BLUE MIST BLUEBEARD	3 GALLON	
	COMPTONIA PEREGRINA	SWEETERN	1 GALLON	
	CORNUS SERICEA	REDOSIER DOGWOOD	3-4' HT.	
	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	18-24"	
	ILEX MESERVEAE 'BLUE PRINCESS'	BLUE PRINCESS HOLLY	4-4.5' HT.	
	ILEX VERTICILLATA 'WINTER RED'	'WINTER RED' WINTERBERRY	3-4' HT.	
	JUNIPERUS PROCUMBENS 'NANA'	NANA CREEPING JUNIPER	3 GALLON	
	LEUCOTHOE F. 'GIRARD'S RAINBOW'	GIRARDS RAINBOW LEUCOTHOE	18-24"	
	MYRICA PENNSYLVANICA	NORTHERN BAYBERRY	2-2.5' HT.	
	POTENTILLA F. 'PRIMROSE BEAUTY'	PRIMROSE BEAUTY POTENTILLA	18-24"	
	RHODODENDRON CHINOIDES	WHITE RHODODENDRON	18-24"	
	SPIREA LATIFOLIA	MEADOWSWEET	3 GALLON	
	THUJA O. 'EMERALD GREEN'	EMERALD GREEN ARBORVITAE	4-5' HT.	
	VACCINIUM ANGUSTIFOLIUM	LOWBUSH BLUEBERRY	1 GALLON	
	VACCINIUM CORYMBOSUM	HIGHBUSH BLUEBERRY	2-3' HT.	
	VIBURNUM TRILOBUM	AMERICAN CRANBERRYBUSH	2-3' HT.	
	ACHILLEA MILLEFOLIUM 'MOONSHINE'	MOONSHINE YARROW	1 GALLON	
	ASTER NOVAE ANGLIAE	NEW ENGLAND WOOD ASTER	1 GALLON	
	ASCLEPIUS SULLIVANTII	PRAIRIE MILKWEED (PINK)	1 GALLON	
	ASCLEPIUS SUBVERTICILLATA	HORSETAIL MILKWEED (WHITE)	1 GALLON	
	CALAMAGROSTIS A. 'KARL FOERSTER'	FEATHER REED GRASS	3 GALLON	
	EUPATORIUM MACULATUM	SPOTTED JOE PYE WEED	2 GALLON	
	ECHINOPS RITRO	GLOBE THISTLE	2 GALLON	
	ECHINACEA PURPUREA	PURPLE CONEFLOWER	2 GALLON	
	ECHINACEA PURPUREA 'WHITE SWAN'	WHITE SWAN CONEFLOWER	2 GALLON	
	HOSTA 'BLUE ANGEL'	BLUE ANGEL HOSTA	2 GALLON	
	HEMEROCALLIS 'STELLA DORO'	STELLA DORO DAYLILY	1 QUART	
	LIRIOPE MUSCARI	BIG BLUE LILYTurf	1 QUART	
	LEUCANTHEMUM SUPERBUM 'BECKY'	BECKY SHASTA DAISY	2 GALLON	
	MISCANTHUS SINENSIS	MORNING LIGHT GRASS	2 GALLON	
	MONARDA 'JACOB CLINE'	JACOB CLINE BEEBALM	2 GALLON	
	PENNISETUM ALPECOUROIDES	FOUNTAIN GRASS	2 GALLON	
	PANICUM VIRGATUM 'HEAVY METAL'	HEAVY METAL SWITCH GRASS	2 GALLON	
	RUDBECKIA FULGIDA	BLACK EYED SUSAN	2 GALLON	
SEED MIXES				
AS MANUFACTURED BY NEW ENGLAND WETLAND PLANTS, INC. OR EQUIVALENT				
NATURALIZED SLOPE				
SHOWY WILDFLOWER MIX				
SPECIES Little Bluestem (Schizachyrium scoparium), Greening Red Fescue (Festuca rubra), Indian Grass (Sorghastrum nutans), Partridge Pea (Chamaecrista fasciculata), Showy Tick Trefoil (Desmodium canadense), Canada Wild Rye (Elymus canadensis), Virginia Wild Rye (Elymus virginicus), Common Milkweed (Asclepias syriaca), Beard Tongue (Penstemon digitalis), Golden Alexander (Zizia aurea), Black Eyed Susan (Rudbeckia hirta), Lance Leaved Coreopsis (Coreopsis lanceolata), Oxy Eye Sunflower (Helopsis helianthoides), Common Sneezeweed (Helenium autumnale), Marsh Blazing Star (Liatris spicata), Cup Plant (Silphium perfoliatum), Blue Vervain (Verbena hastata), Smooth Blue Aster (Aster laevis), New England Aster (Aster novae-angliae), Wild Blue False Indigo (Baptisia australis), Purple Joe Pye Weed (Eupatorium purpureum), Grass Leaved Goldenrod (Euthamia graminifolia), Wild Bergamot (Monarda fistulosa), Evening Primrose (Oenothera biennis), One Spindertoot (Tradescantia virginiana), Early Goldenrod (Solidago juncea)				



PROJECT NARRATIVE

MAPLE WOODS, WENHAM

March 25, 2015

LANDSCAPE NARRATIVE

Visitors, residents, and employees enter the site off of Maple Street to a tree lined entrance punctuated by a low farmers wall, split rail fencing and low ornamental plantings. As the driveway opens up to the larger site, a 4' grass maintenance strip along the road transitions to a naturalized meadow and groves of River Birch, Maple and Oak trees. An open lawn along the southern portion of the site will provide passive recreation opportunities for residents, and needed outdoor space for events. This lawn is framed by low native plantings and a walking path and seating area.

Highlights of the landscape plan include:

- Use of native plant material throughout the site based on growth habit, habitat value and drought tolerance.
- Planting of large shade trees throughout the site.
- Heavily screened multi-tiered planting areas along the southern property edge with abutters.
- Preservation of existing hedge to keep existing screening in place.
- Creation of a walking path for residents, separated from the entry driveway and parking area.
- Creation of a patio area with benches for seating.
- A defined central open lawn space for events and passive recreation.
- Incorporation of large meadow areas around the perimeter of the site for habitat value, aesthetics and reduced long term maintenance and water use.
- No exterior irrigation for plantings, lawn and meadow areas other than temporary measures during establishment phase.
- Pedestrian scale light poles and fixtures (12' height) throughout the site with light directed downward onto the surface only.

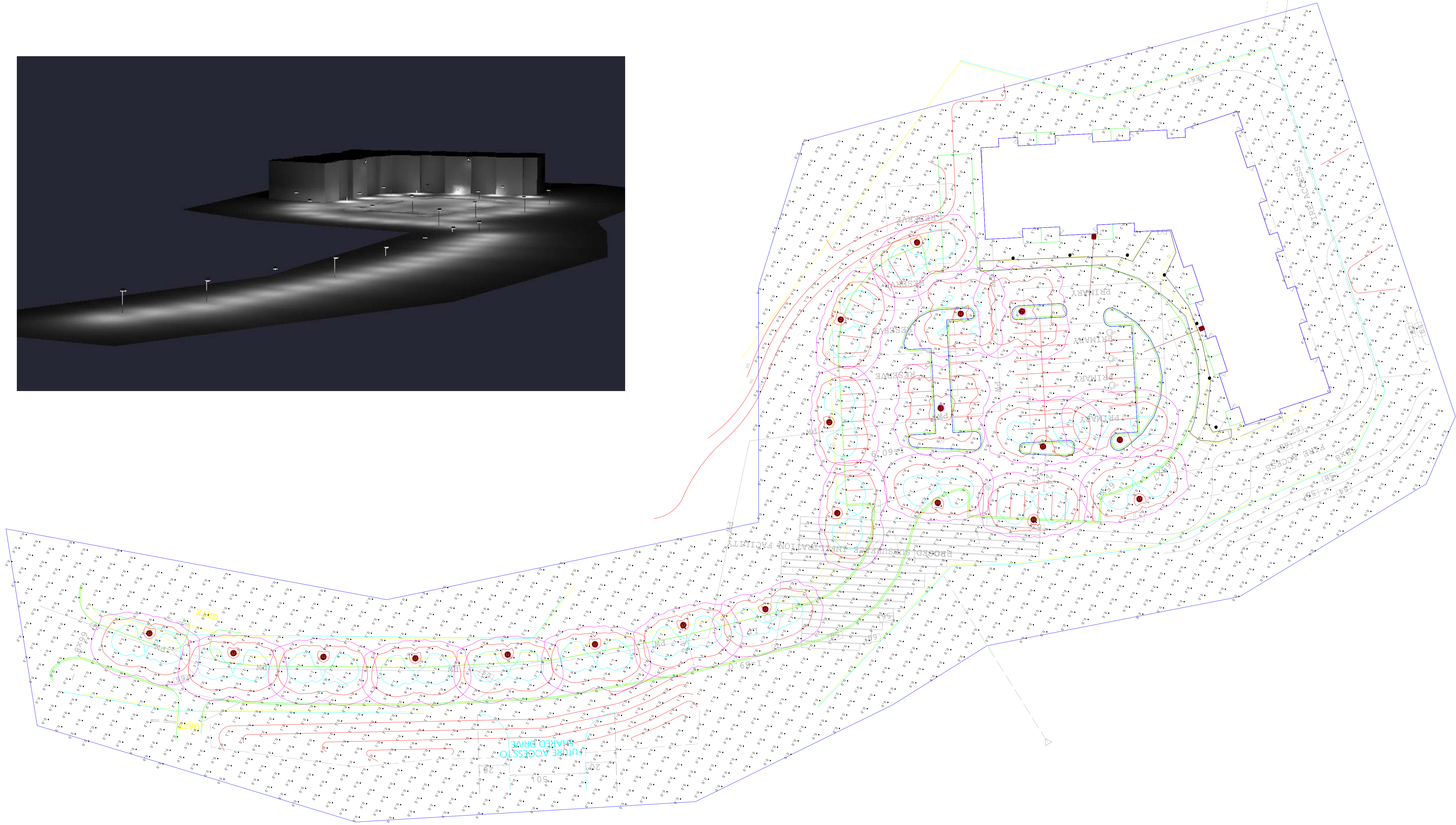
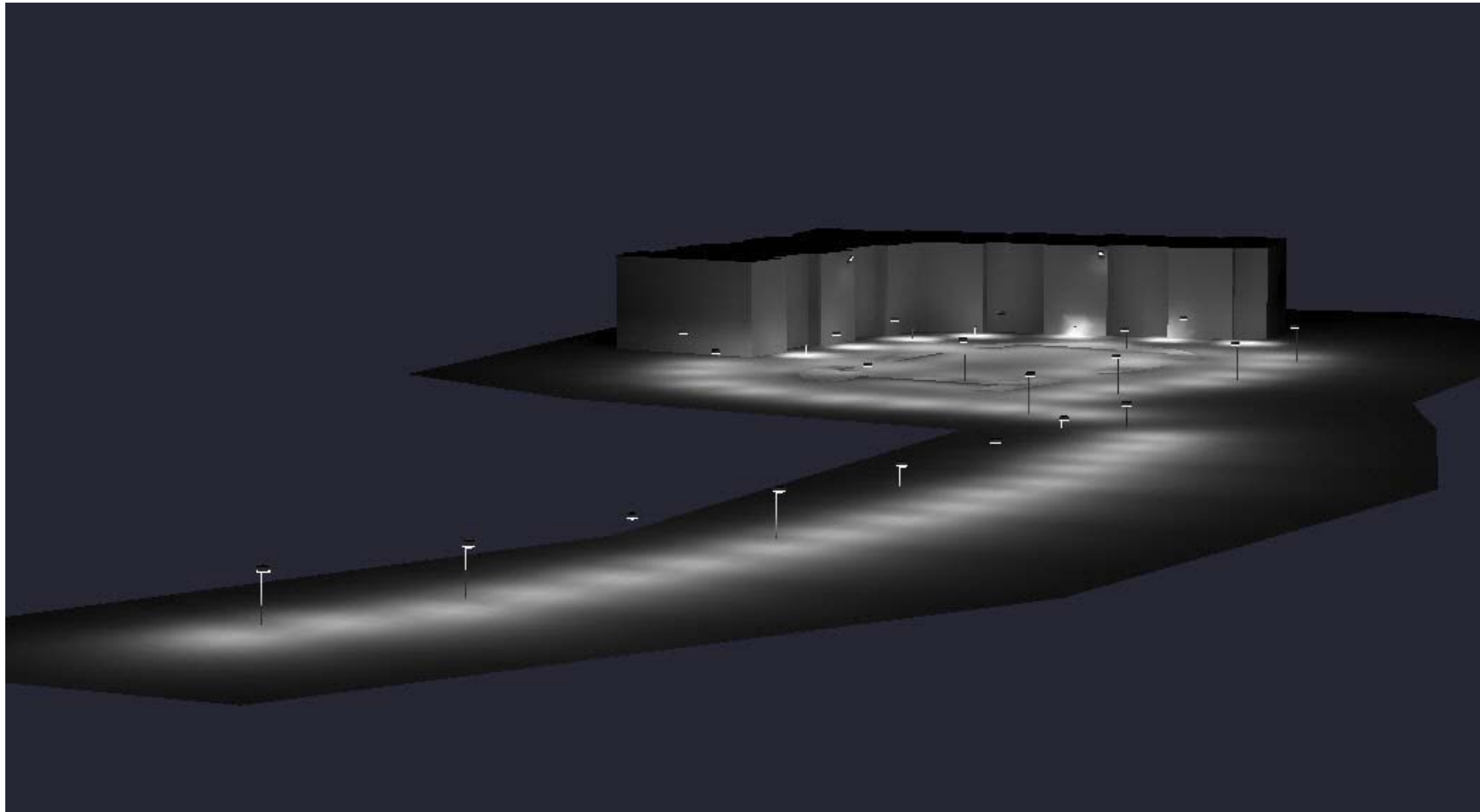
LIGHTING NARRATIVE

The lighting plan uses a traditional lantern style LED fixture mounted on 12-14' cast black aluminum poles along the driveway and in the islands of the parking areas. The poles are located approximately 60' on center along the driveway. The front walkways are lit with 4' high bollards at a spacing of approx. 30' between fixtures.

Highlights of the lighting plan include:

- There are a total of 19 pole mounted lights and 7 bollards.
- Energy Efficiency: AAL's Providence fixture is designed to use electrical energy in the most efficient possible way. The reflectors are designed to precisely direct the illumination on the ground with no stray light which translates into wasted energy. The result is more light with less energy consumption
- Full cutoff fixtures: Providence reflectors are designated as full cutoff for horizontal reflectors. Full cutoff means there is no light emitted above 90 degrees horizontal. The light is directed downward only.

- The Providence is an LED 'traditional' style fixture.
- Poles are 4" diameter black cast aluminum with a flared base, and range in height from 12-14' for a pedestrian scale.
- Longevity: AAL manufactures all its products to have a life span as long as the buildings or spaces they illuminate. The primary material used for all our products is aluminum to resist corrosion and the need for maintenance. Aluminum will not need the periodic refinishing required of steel products that will eventually rust and corrode. All internal parts and fasteners are made of aluminum or stainless steel. The lamp enclosures are kept dust free and dry to prevent light degradation and maintain a high level of energy efficiency.
- The proposed lights are Dark Skies Compliant. The IDA (International Dark Sky Association), through it's policies and efforts, is an organization which seeks to improve the nighttime environment by reducing light pollution through better lighting practices that provide:
 - Energy savings resulting in economic benefits
 - Superb nighttime ambience and quality of life
 - Conservation of nocturnal wildlife and ecosystems
 - Safeguarding of scientific and educational opportunities, such as astronomy
 - Increased visibility, safety, and security at night by reducing glare
 - Protection of human health
-
-



Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
	16	P3	SINGLE	N.A.	0.850	PROV-T3-32LED-3K-450
	1	P2	SINGLE	N.A.	0.850	PROV-T2-32LED-3K-450
	3	P5	SINGLE	N.A.	0.850	PROV-T5-32LED-3K-450
	7	PBOL	SINGLE	N.A.	0.850	PROB-LED-18
	2	ARF2	SINGLE	N.A.	0.850	ARF2-X-20L3K-070-M-U-XX

Revisions			
#	Date	Comments	

Drawn By: Bob Kaseta			
Date: 9/30/2014			
Scale:			

Wenham Project	

FRESNO SERIES

Cat.#

Job

Type



Approvals

INTENDED USE:

- Fresno series bollards are designed to illuminate walkways and courtyards

CONSTRUCTION:

- Extruded aluminum square or round housing, with tamper resistant hardware; Flat top, for round FN2. Single screw access for top relamping
- Sealed one-piece, clear acrylic lens; Specular, anodized aluminum optical systems; dual reflector, tube optics, or internal louvers (HID or CFL)
- Concealed, galvanized steel anchor base; Four 1/2" x 10" anchor bolts
- Durable Lektrocote® TGIC thermoset polyester powder coat paint finish assures long life and maintenance-free service

ELECTRICAL:

HID

- HPF ballast, starting rated at -20°F (-40°F for HPS); Pulse Start Metal Halide is CWA or Super CWA type HPS is CWA, HR, or Reactor type
- Medium porcelain socket, pulse rated, with spring-loaded, nickel-plated center contact and reinforced lamp grip screw shell

FLUORESCENT

- Programmed Start electronic ballast with end of life protection and universal voltage: 26/32/42w
- One Lamp – CFTR/GX24Q – Triple Tube 4-Pin

LED

- Universal voltage (120-277V) drivers with +/- 10% tolerance, starting temperature rated at -20°F
- Optional continuous dimming to 10% (0-10V)
- Rotatable LED assembly adjustment for ideal placement and aiming of asymmetric light pattern
- 24 high brightness LEDs at 500 mA deliver symmetric distribution at 46w
- 12 high brightness LEDs at 700 mA deliver asymmetric distribution at 31w
- Available in two color correlated temperatures (3500K and 5000K)
- Long life 50,000 hour L70 rated at 25°C

LISTINGS:

- Listed to UL1598 for use in wet locations

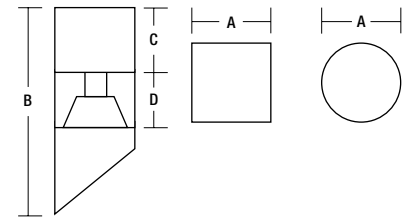
WARRANTY

- 5 year limited warranty for LED system, visit <http://www.spauldinglighting.com/resources/warranty/>

PRODUCT IMAGE(S)



DIMENSIONS



	A	B	C	D	Weight
FN1	6.75" sq. 171 mm	42.0" 1067 mm	6.0" 152 mm	4.0" 102 mm	41 lbs 19 kg
FN2	7.0" dia 178 mm	42.0" 1067 mm	6.0" 152 mm	4.0" 102 mm	41 lbs 19 kg

CERTIFICATIONS/LISTINGS



ORDERING INFORMATION

ORDERING EXAMPLES: FN1-P50-D0-Q-DB-L, FN2-24LU-3K-U-DB

SERIES	SOURCE/WATTAGE/LED	OPTICS	VOLTAGE	COLOR	OPTIONS
FN1 Fresno Square	PULSE START METAL HALIDE	D0⁷ Dual reflector with cone (standard)	Q¹ Quad-Tap® 120/208/240/277V	DB Dark Bronze	F(X) Fusing (replace X with voltage: 1-120V, 2-208V, 3-240V, 4-277V)
FN2 Fresno Round	P50 50w (ED-17)	TO^{3,7} Tube optics	T^{1,4} Tri-Tap® 120/277/347V (CSA)	BL Black	WH White
	P70 70w (ED-17)	IL⁷ Internal horizontal louvers	U⁵ Universal 120 - 277V, 50/60 Hz	GR Gray	PS Platinum Silver
	P10 100w (ED-17)		1 120V	RD Red (premium color)	FG Forest Green (premium color)
	HIGH PRESSURE SODIUM		5^{6,7} 480V	CC Custom Color (consult factory)	P(X) Photo button (replace X with voltage: 1-120V, 2-208V, 3-240V, 4-277V)
	S35² 35w (ED-17)				P6^{6,7} Photo button - 347V
	S50 50w (ED-17)				24 24" luminaire height
	S70 70w (ED-17)				30 30" luminaire height
	S10 100w (ED-17)				36 36" luminaire height
	FLUORESCENT				HS90⁷ Internal shield - 90° (FN1 Only)
	F26 26w CFL (G24q Base)				HS160⁷ Internal shield - 160°
	F32 32w CFL (G24q Base)				HS180⁷ Internal shield - 180° (FN2 only)
	F42 42w CFL (G24q Base)				L⁷ Lamp
	LED				CD⁸ Continuous dimming
	12LU-3K 12 LEDs, 31w, asymmetric distribution, 3500K, 120-277V, 50/60 Hz				
	12LU-5K 12 LEDs, 31w, asymmetric distribution, 5000K, 120-277V, 50/60 Hz				
	24LU-3K 24 LEDs, 46w, symmetric distribution, 3500K, 120-277V, 50/60 Hz				
	24LU-5K 24 LEDs, 46w, symmetric distribution, 5000K, 120-277V, 50/60 Hz				

**SP- SURGE
SUPPRESSION**

- Factory wired for highest voltage unless specified, HID only
- 120V only
- Upper reflector with no lower cone
- 70 or 100w system only
- CFL or LED only
- Not available with CFL
- Not available with LED units
- LED only



Spaulding Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000

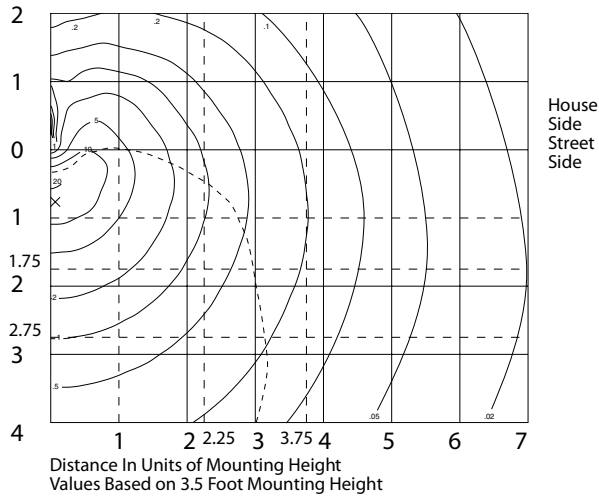
Due to our continued efforts to improve our products, product specifications are subject to change without notice.

© 2014 SPAULDING LIGHTING, All Rights Reserved • For more information visit our website: www.spauldinglighting.com • Printed in USA FN1/FN2-SPEC 1/14

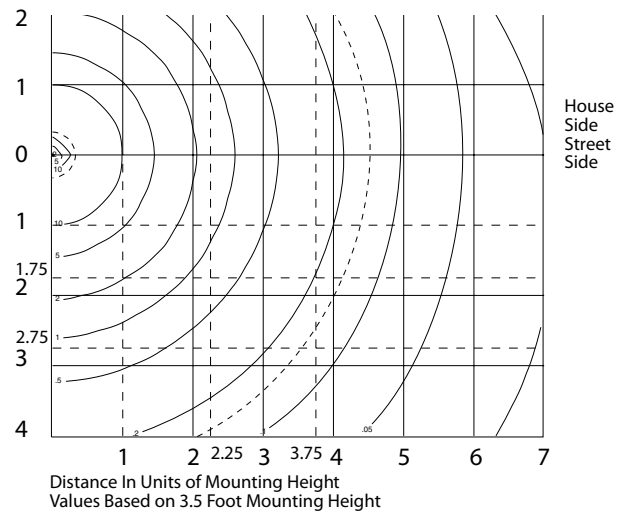


PHOTOMETRIC DATA

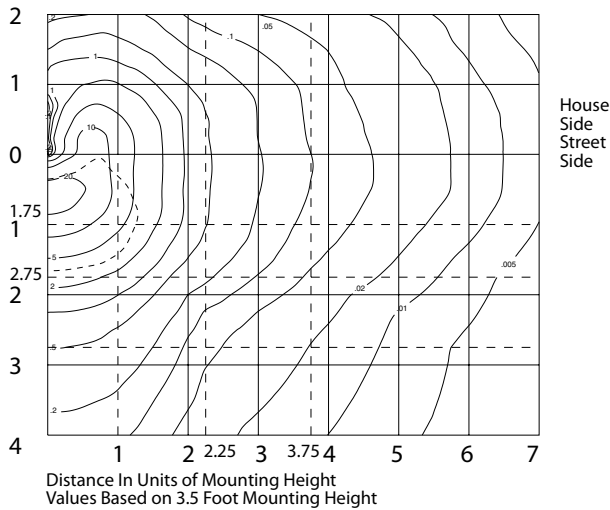
FN2-12LU-3K: 12 LEDS
ASYMMETRIC DISTRIBUTION, 3500K



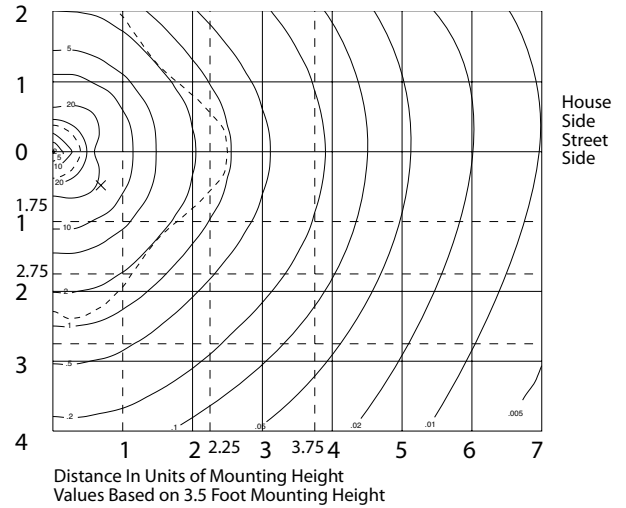
FN2-24LU-3K: 24 LEDS
SYMMETRIC DISTRIBUTION, 3500K



FN1-12LU-5K: 12 LEDS
ASYMMETRIC DISTRIBUTION, 5000K



FN1-24LU-5K: 24 LEDS
SYMMETRIC DISTRIBUTION, 5000K

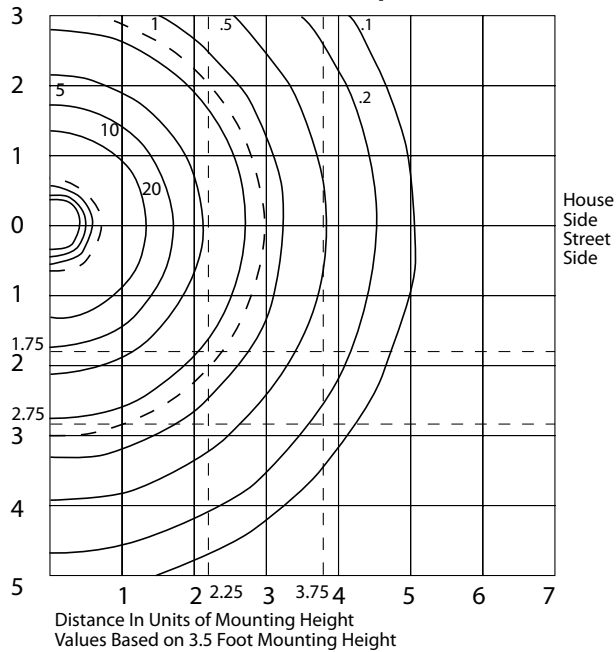


TECHNICAL DATA

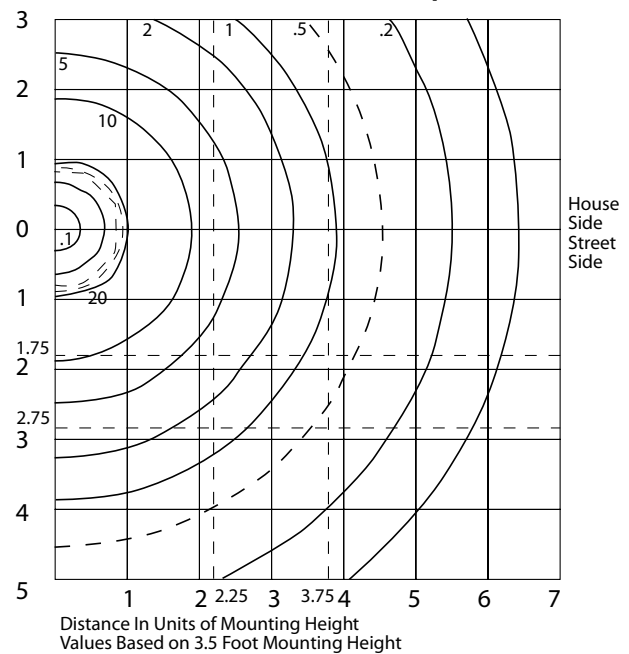
FRESNO BOLLARD ELECTRICAL DATA		Input Current (amps)					
Lamp/Watts	Input Wattage	120V	208V	240V	277V	347V	480V
P50	69	1.20	0.68	0.59	0.51	NA	NA
P70	94	1.90	1.00	0.90	0.80	0.70	NA
P10	129	2.30	1.40	1.20	1.00	1.00	0.60
S35	46	1.40	NA	NA	NA	NA	NA
S50	62	1.00	0.57	0.50	0.45	NA	NA
S70	86	1.40	0.90	0.80	0.70	0.60	NA
S10	115	2.20	1.30	1.10	0.90	0.70	0.60
F42	46	.38	.22	.13	.11	NA	NA

PHOTOMETRIC DATA

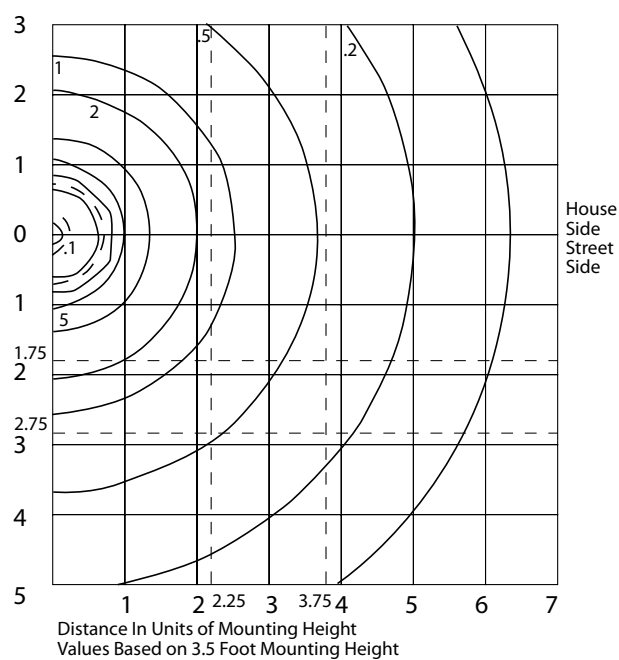
100w PSMH with tube optics



100w PSMH with dual reflector optics



100w PSMH with louvered optics





Providence®

ARCHITECTURAL AREA LIGHTING



ENERGY EFFICIENCY

AAL's **Providence** is designed to use electrical energy in the most efficient possible way. The reflectors are designed to precisely direct the illumination on the ground with no stray light which translates into wasted energy. The result is more light with less energy consumption.

LIGHT POLLUTION

Providence reflectors are designated as cutoff for indirect or full cutoff for horizontal reflectors. Full cutoff means there is no light emitted above 90 degrees horizontal.

LONGEVITY

AAL manufactures all its products to have a life span as long as the buildings or spaces they illuminate. The primary material used for all our products is aluminum to resist corrosion and the need for maintenance. Aluminum will not need the periodic refinishing required of steel products that will eventually rust and corrode. All our internal parts and fasteners are made of aluminum or stainless steel. The lamp enclosures are kept dust free and dry to prevent light degradation and maintain a high level of energy efficiency.

SUSTAINABILITY

Our products are developed with recycling and resource management in mind. We recycle all incoming packaging materials. Our products are shipped in easy to recycle packaging materials. Our state of the art finishing system uses eco-friendly cleansing and preparation chemicals that are harmless enough to send to the drain without further processing. Our powder coating process eliminates the release of volatile chemicals into the atmosphere. AAL makes the Providence, like all AAL products, with renewable materials such as aluminum and stainless steel.

TABLE OF Contents

Design Excellence..... 8

Elevated Scales..... 10

Optical Systems 12

Revolutionary Technology 14

LifeShield..... 16

Upgrade Kits 17

Providence Large (PROL) 18

Providence Medium (PROV) 22

Providence Small (PROS)..... 26

Providence Bollard (PROB)..... 30

Providence Sconce (PRSC) 34

Modern Lighting Performance
with Aesthetics in
Traditional
Forms



IDA Approved Dark-Sky
Friendly versions of these
luminaires are available.



Providence®

Providence® MicroCore LED – Advanced LED Technology
for Outdoor Lighting

Providence is registered and protected by a patent granted by the United States Patent Office. U.S. Patent D515,231

Providence is a registered trademark of Architectural Area Lighting.
©2011 Architectural Area Lighting

The Providence[®] family

are transitional style fixtures that combine modern lighting performance with aesthetics in traditional forms. The Providence Bollard utilizes efficient lamp sources, including LED. Die-cast aluminum construction is corrosion resistant. Available with horizontal full cutoff optic system, and tamper resistant hardware. Other models include wall sconce, small, medium and large luminaires.



Providence
Bollard

AAL CodeLinkSM



PROB spec sheet



Providence
Small

AAL CodeLinkSM



PROS spec sheet

Providence
Medium

AAL CodeLinkSM



PROV spec sheet



Providence
Sconce

AAL CodeLinkSM



PRSC spec sheet



Providence
Large

AAL CodeLinkSM



PROL spec sheet





PROV-WMA55



PROV-CP3

DESIGN EXCELLENCE

LARGE/MEDIUM LED

Featuring MicroEmitter™ Technology

- Glare guard perimeter reflector redirects stray light
- Heat sink aluminum carrier plate helps dissipate heat and prolongs LED life
- Hammertone center reflector evenly distributes light directly beneath the luminaire
- Precisely aimed MicroEmitters put light where it is needed and significantly reduce glare
- Individual MicroEmitters are field replaceable
- EmitterDeck™ assembly is upgradeable as LED technology advances, or convert existing Providence HID into LEDs

- Die-cast housing for maximum durability
- Decorative struts conceal wiring
- Decorative spikes available

Providence LED, part of AAL's Designer SSL Series, is the first truly elegant LED luminaire on the market today. Its distinctive styling and high performance sets it apart from all others. One look is all it takes to discern that Providence is the epitome of quality and beauty.

SMALL LED

LED module

MEDIUM

Horizontal Reflector

SCONCE

Bi-directional capabilities available with R111 as secondary opposing output source (2R). Also available with pencil up beam with optional color filter (2DPB)

- One-piece memory retentive gasket
- Tool-less access

Providence Sconce is available with four precise optical systems, including pencil beam/column light, allowing you to precisely illuminate architectural features. Available as an uplight, downlight or an uplight/downlight combination, with an optional R111 as the secondary opposing output source.

The Providence Sconce also features highly efficient LED's providing a Type 5 distribution. Features 4 modules with 9 LED's per module for a total of 36 LED's (37 watts), and available in Warm White (3500K) or Bright White (5100K) color temperatures. Other efficient sources offered include CFL, induction systems and the new 60 watt Philips Cosmopolis™* lamp.

* Cosmopolis™ is a registered trademark of Philips Lighting.

BOLLARD

- RD-Smooth body
- FL-Fluted body

The **Providence Bollard** features a symmetrical horizontal optical system, and employs the most efficient light sources on the market today.

This includes highly efficient LED's providing Type1, Type 3 or Type 5 distribution, as well as compact fluorescent and the new Mini MasterColor® lamps.

INDIRECT OPTICAL SYSTEM

Specify either the PROS or PROV with AAL's revolutionary indirect optical system for extremely even illumination and improved comfort. The indirect system eliminates uplight for dark sky compliance without an overly bright hot spot of light directly below the fixture. The primary optical system is designed to tightly control upward illumination. This highly engineered optical system results in less than 1% uplight, earning an IES "cutoff" classification.

The lower optical system consists of a lamp and highly polished reflector. The reflector is specifically designed to focus the beam of an ED-17 or T6 metal halide lamp.

EVEN, GLARE-FREE ILLUMINATION

The upper reflector directs the primary beam into a symmetric or asymmetric beam of light on the ground.



Upper reflector
symmetric
distribution
(Indirect)



Upper reflector
asymmetric
distribution
(Indirect)



AAL is proud to be an official Energy Star Partner and DOE Official SSL Quality Advocate.

LED Exclusive MicroEmitter™ Technology

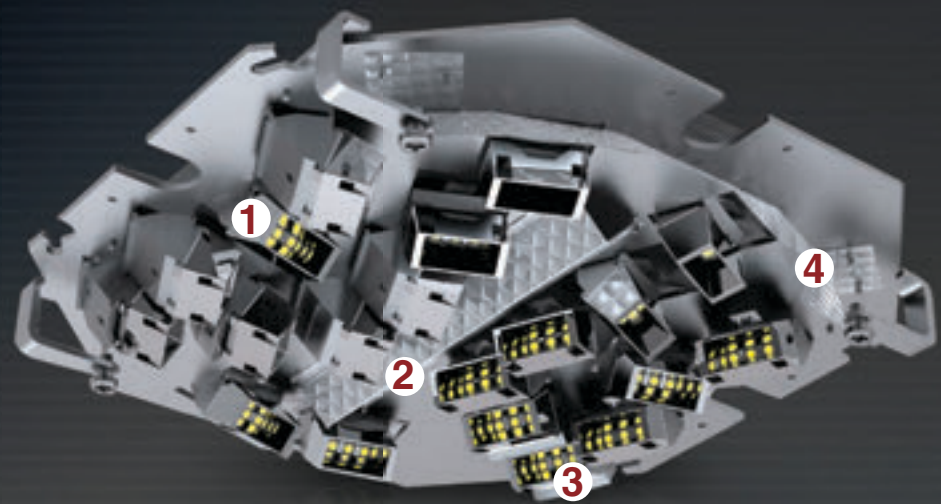
As part of AAL's Designer SSL Series, Providence Large and Medium scale luminaire features AAL's exclusive **MicroEmitter™** technology which tightly and precisely controls powerful LED output while minimizing glare.

REVOLUTIONARY
TECHNOLOGY

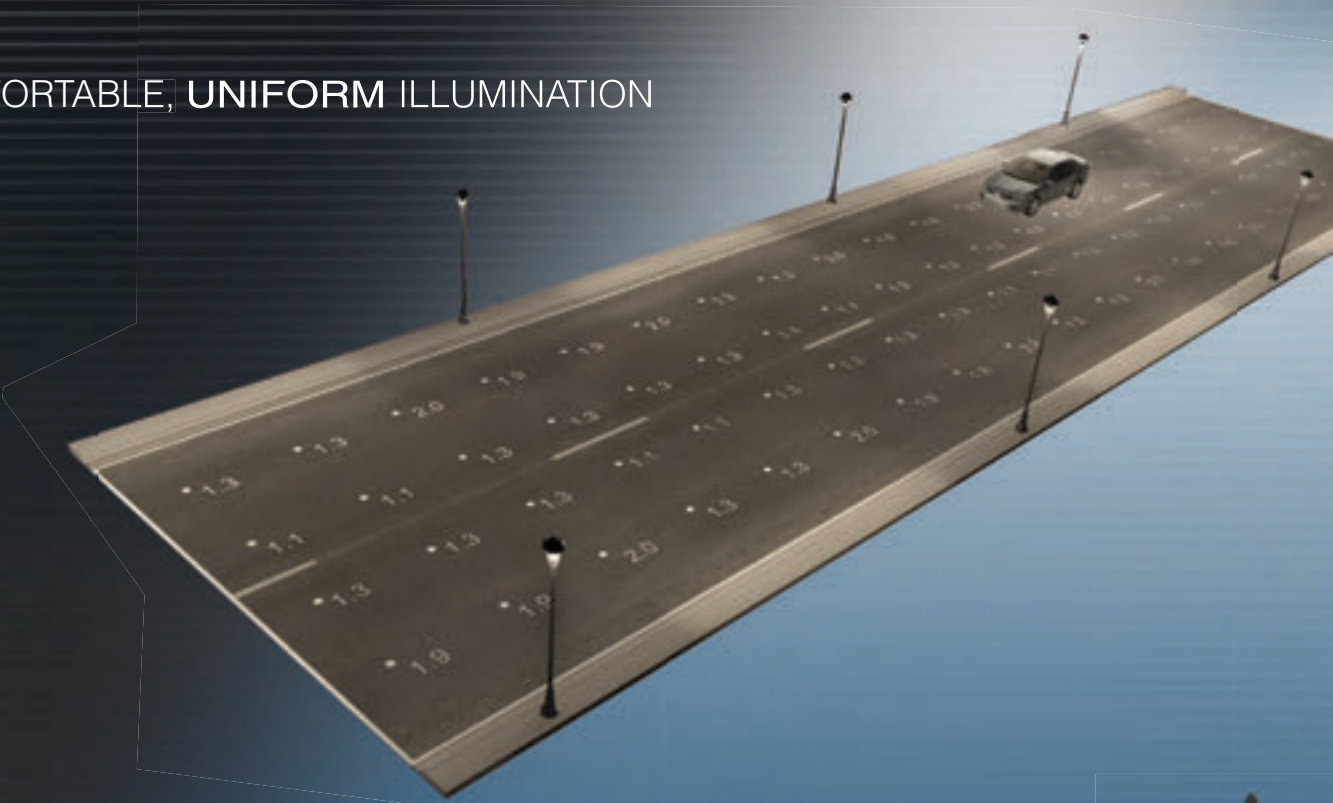
Entire EmitterDeck is Upgradeable as LED
Technology Advances

- 1 Canted MicroEmitter design precisely aims each diode at 70°, 60°, or 50° angles for maximum reach and uniform illumination
- 2 Glare guard perimeter and center reflectors redirect stray light
- 3 Deeply regressed sources maximize efficiency while reducing glare
- 4 Aluminum carrier plates dissipate heat away from LED's to the housing assembly

EmitterDeck™ Assembly



COMFORTABLE, UNIFORM ILLUMINATION



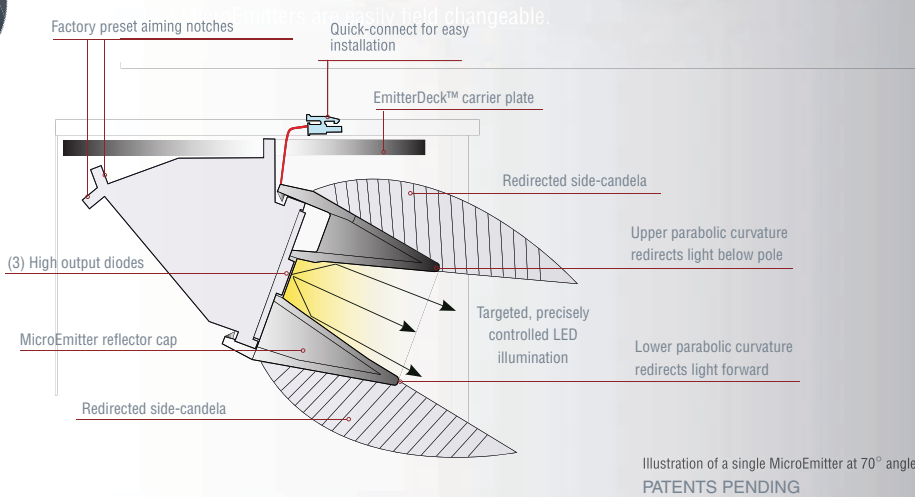
CONFIGURATION:	PROV-T3-60LED-BW	
MOUNTING HEIGHT:	12'	
POLE SPACING:	60'	
ROADWAY WIDTH:	48'	
FOOTCANDLES:	1.63 avg	1.63 avg/min
	3.3 max	3.3 max/min
	1.0 min	

HOW IT
WORKS

The exclusive precision aiming system of AAL's Providence LED ensures that even when looking directly at the luminaire, only one-half of the LEDs can be viewed at any given time. This results in 50% less glare when compared to other exposed, unshielded LED systems. In addition, AAL's MicroEmitters are aimed at various angles to maximize uniformity, improve comfort, and properly direct illumination to the target zone.

up to 50%
LESS glare

Compared to exposed, unshielded LED systems.



THERMAL MANAGEMENT

LifeShield™
Protection System

Advanced Thermal
Management with Hubbell's
Exclusive *LifeShield™*
Protection System

LEDS FOR WARMER ENVIRONMENTS

Providence LED features our exclusive new LifeShield™ Protection System. Each EmitterDeck employs temperature sensors located at the most heat sensitive locations within the LED array. Each sensor sends temperature readings in regular intervals to AAL's LifeShield monitoring device. LifeShield detects high ambient temperatures and temporarily reduces current slightly to preserve diode life. Lumen output is restored to full capacity once temperatures stabilize within acceptable limits.



In addition, to maximize cooling surface area, each MicroEmitter incorporates a solid aluminum heat sink, which is fastened to the EmitterDeck's thick aluminum carrier plate. The EmitterDeck is then affixed to the luminaires' housing to effectively disperse heat away from the optical chamber. When combined with LifeShield protection, the result is a highly reliable LED system that can withstand operation in even warmer, heat sensitive environments.

UNIQUE SUSTAINABLE SOLUTIONS

AAL's Providence LED is designed for easy installation and upgrading as technology advances. Simple field upgrades mean communities can take advantage of the newest LED technology without the added expense of removing and replacing an entire luminaire.

- Easy 10-minute field conversion
- Upgrade LEDs as technology advances
- Individual MicroEmitters are field replaceable
- 60,000+ hours of useful life (L₇₀)
- Tested under strict LM-79-08 standards
- IES-LM-80 compliant LED components

CONVERT HID TO LED

AAL's exclusive EmitterDeck™ design allows for simple upgradability of existing AAL luminaires in the field. Think of this like a personal computer system. The LED luminaire is the hardware and its easily replaceable EmitterDeck is the software. As LED technology advances and becomes even more efficient, AAL's LED sustainable solutions will meet the needs of communities today and in the future.

LED VS. HID – ENERGY SAVINGS EXAMPLE

Description	Total Luminaire Wattage	Energy Savings (Watt)	Energy Savings (kW)	Energy Savings per Fixture per Year*
PROV LED	72	-	-	-
70W MH	90	18	0.018	\$7.88
70W HPS	91	19	0.019	\$8.32
100W MH	129	57	0.057	\$24.97
100W HPS	130	58	0.058	\$25.40
150W MH	164	74	0.074	\$32.41

**12 hours per night @ \$0.10 per kWh*

SIMPLE 10-MINUTE CHANGEOUT



STEP 1
Turn off power and remove lamp and reflector assembly.



STEP 2
Remove existing electronic and ballast components.



STEP 3
Install new LED EmitterDeck, connect wiring plug, and turn on power.



Scales

ELEVATED



FIXTURE		2 - PROS		PROV	PROV	PROV	PROV	PROL	PROL	PROV
ARM		2 - TRA59U		TRA55	TRA57	TRA56	-	-	TRA56	WMA55
POLE		4R12		4R16	4F14	4R20	4F12	5R22	5F18	-
BASE COVER		DB1		DB6	DB12	DB3	DB8	DB10	DB2	-



AAL CodeLinkSM



PROL spec sheet



Providence

LARGE

Providence LED Large
Part of Designer SSL Series

1 LUMINAIRES

PROL-T2-108LED-WW	IES Type 2 distribution. Warm white (3500K).
PROL-T2-108LED-BW	IES Type 2 distribution. Bright white (5100K).
PROL-T3-108LED-WW	IES Type 3 distribution. Warm white (3500K).
PROL-T3-108LED-BW	IES Type 3 distribution. Bright white (5100K).
PROL-T4-108LED-WW	IES Type 4 distribution. Warm white (3500K).
PROL-T4-108LED-BW	IES Type 4 distribution. Bright white (5100K).
PROL-T5-108LED-WW	IES Type 5 distribution. Warm white (3500K).
PROL-T5-108LED-BW	IES Type 5 distribution. Bright white (5100K).
108 light emitting diode array (124 watts). Class 1, 120 thru 277 volt. 350mA drive current.	
PROL-H2	Type 2 horizontal reflector, flat glass lens
PROL-H3	Type 3 horizontal reflector, flat glass lens
PROL-H4	Type 4 horizontal reflector, flat glass lens
PROL-H5	Type 5 horizontal reflector, flat glass lens

2 LAMP/BALLAST

150PSMH	Pulse start 150 watt metal halide 120/208/240/277 volt ballast. Use mogul base, ED-28 lamp.
250PSMH	Pulse start 250 watt metal halide 120/208/240/277 volt ballast. Use mogul base, ED-28 lamp.
320PSMH	Pulse start 320 watt metal halide 120/208/240/277 volt ballast. Use mogul base, ED-28 lamp.
350PSMH	Pulse start 350 watt metal halide 120/208/240/277 volt ballast. Use mogul base, ED-28 lamp.
400PSMH	Pulse start 400 watt metal halide 120/208/240/277 volt ballast. Use mogul base, ED-28 lamp.
150HPS	150 high pressure sodium 120/208/240/277 volt ballast. Use mogul base, ED-23 1/2 lamp.
200HPS	200 high pressure sodium 120/208/240/277 volt ballast. Use mogul base, ED-18 lamp.
250HPS	250 high pressure sodium 120/208/240/277 volt ballast. Use mogul base, ED-18 lamp.
400HPS	400 high pressure sodium 120/208/240/277 volt ballast. Use mogul base ED-18 lamp.
All ballasts are factory wired for 277 volts, unless specified. Lamps not included. All applicable ballasts are EISA compliant.	

3 OPTIONS

SPK	Decorative cast aluminum spikes on the top and bottom of the four vertical struts.
PFN	Cast aluminum finial painted a brass color.
BPS	Cast aluminum struts painted a brass color. Spikes also painted brass if chosen.
PCA-T	Rotatable photocell housing.
HSS	House side shield to cut off light behind the pole and shield the lamp from view. HSS not available for Type 5. Factory installed. Not for LED.
LDL	Lightly diffused lens. Frosted, flat tempered glass lens has a lightly diffused finish to minimize the lamp and reflector brightness.
QRS	Restrike controller and T-4 mini-can socket will light following power outage until HID reaches full brightness. (Lamp wattage not to exceed ballast wattage). For horizontal reflector only. Not for LED.
QL	Socket for T-4 mini-can lamp, field wired to a separate circuit. (Lamp wattage not to exceed ballast wattage). Must be field wired to a separate 120 volt circuit. For horizontal reflector only. Not for LED.

ORDERING INFORMATION PROL

ORDERING EXAMPLE

1. LUMINAIRE/LED CONFIGURATION	PROL-T3-108LED-BW
2. LAMP/BALLAST	N/A
3. OPTIONS	SPK
4. COLOR	BLK
5. MOUNTING	TRA57

4 COLOR

All 13 standard and 5 premium AAL colors available. For RAL, please submit a 4-digit RAL number or color chip for custom colors.

5 MOUNTING

Select post top mount on a 5" O.D. pole or choose from a wide variety of arms.

SPECIFICATIONS

PROL

HOUSING

The fixture housing shall be two-piece die-cast aluminum. The internal reflector module is sealed from the outer housing with a one-piece, memory retentive, molded silicone gasket. The tempered flat glass lens shall be sealed to the housing with a silicone gasket. One recessed stainless steel latch shall release the door to allow access to the LED array.

REFLECTOR MODELS – REFLECTOR/LAMP

The upper lamp housing shall be die cast aluminum. The internal reflector module is sealed from the outer housing with a one piece, memory retentive, molded silicone gasket. The tempered glass lens shall be sealed to the housing with a silicone gasket. One stainless steel latch shall release the door to allow access to the lamp. The reflector module shall be composed of faceted, specular and semi specular anodized aluminum panels rigidly attached in a die cast aluminum housing. The reflector shall be removed without tools by releasing a pair of steel latches. The reflector tray shall be rotatable on 90° centers for orienting the light distribution. The horizontal reflectors shall meet ANSI-IES standards for full cutoff reflector systems.

REFLECTOR MODELS – BALLAST

The lower ballast housing shall be cast aluminum. The tool-less ballast access for servicing is accomplished by a quarter turn motion of the top cover. The ballast shall be mounted on a prewired tray with a quick disconnect plug attached to the underside of the cover. HID ballasts are high power factor, rated for -30°C starting. Sockets are medium base, G12 for use with T6 lamps or mogul base, pulse rated porcelain. Ballasts are wired at the factory for 277 volts, unless specified.

UPGRADE KITS

Field replaceable upgrade kits are available for PROL-H reflector models. An entire EmitterDeck assembly, including drivers and 36 LED MicroEmitters (108 diodes) for PROL, is provided. See installation instructions for complete details.

ELECTRICAL

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.

MICROEMITTER™ REFLECTOR

Precision injection molded, high specular reflectors are positioned to achieve directional control toward desired task for IES cutoff classification. 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. Rated luminous efficacy for PROV is >40 lm/W, with rated light output of >2864 for 5100K LED, standard mount. MicroEmitters are field replaceable.

INSTALLATION & MOUNTING

The large (PROL) Providence shall be factory supplied as a complete, prewired assembly. The PROV fitter shall slip over a 4"/100 mm, the PROL fitter shall slip over a 5"/127 mm open top pole or 4"/100mm arm and be secured and leveled with 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.

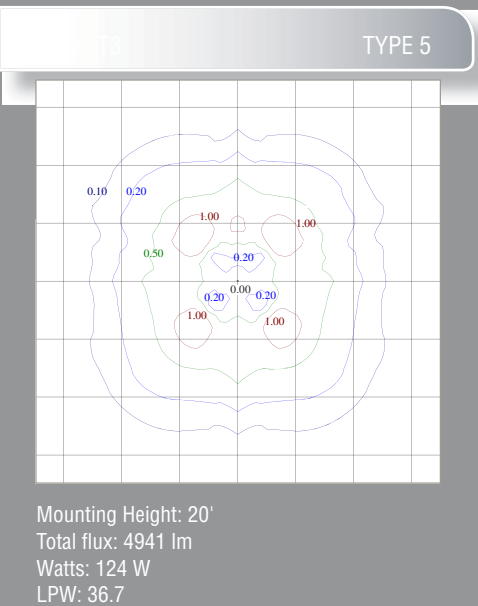
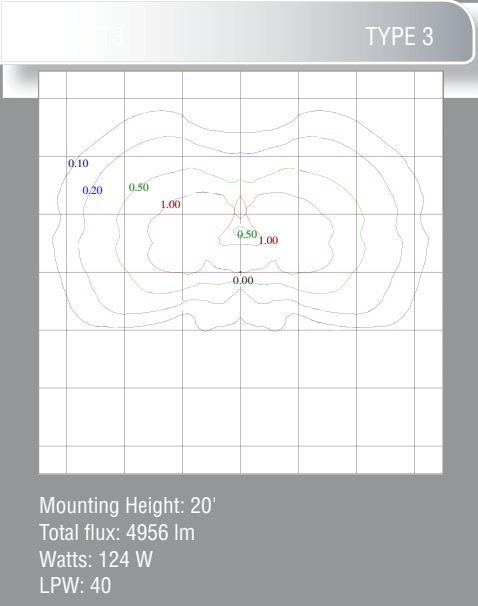
CERTIFICATION

The fixture shall be listed with ETL for outdoor, wet location use. Conforms to the UL1598 and Canadian CSA Std. C22.2 no.250 standard. IP55.

WARRANTY

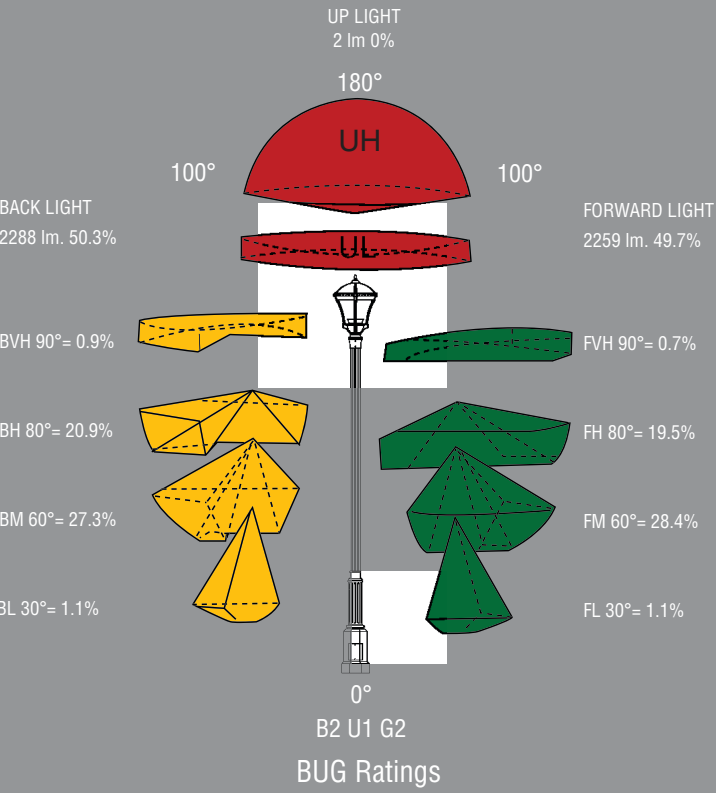
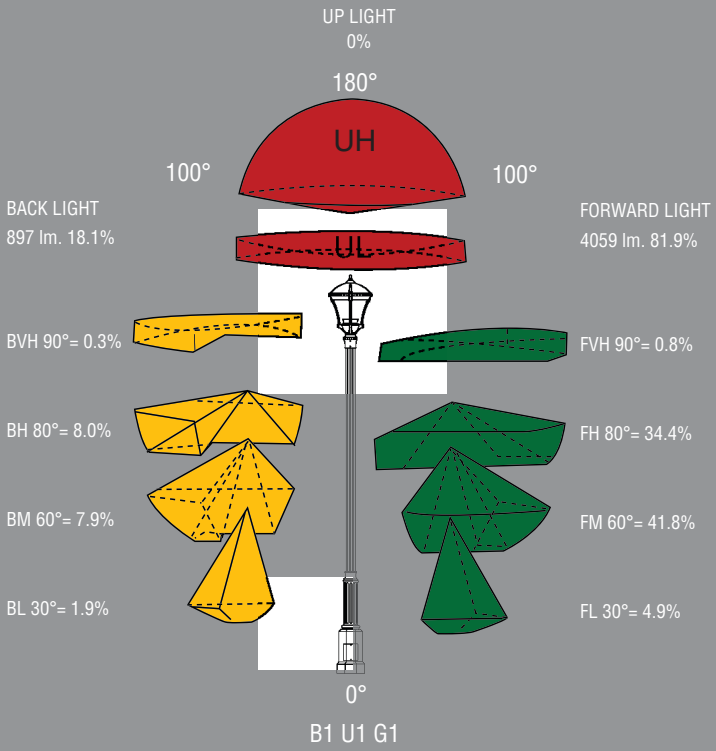
Providence LED, including housing LEDs and electrical components, is warranted for five years. Providence HID is warranted for 3 years. Any unauthorized return, repair, replacement or modification of the Product(s) shall void this warranty. This warranty applies only to the use of the Product(s) as intended 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.

AAL reserves the right to change product specifications without notice.



PHOTOMETRY

PROL





Providence

MEDIUM

Providence LED Medium
Part of Designer SSL Series

AAL CodeLinkSM



PROV spec sheet



1 LUMINAIRES

PROV-T2-60LED-WW	IES Type 2 distribution. Warm white (3500K).
PROV-T2-60LED-BW	IES Type 2 distribution. Bright white (5100K).
PROV-T3-60LED-WW	IES Type 3 distribution. Warm white (3500K).
PROV-T3-60LED-BW	IES Type 3 distribution. Bright white (5100K).
PROV-T4-60LED-WW	IES Type 4 distribution. Warm white (3500K).
PROV-T4-60LED-BW	IES Type 4 distribution. Bright white (5100K).
PROV-T5-60LED-WW	IES Type 5 distribution. Warm white (3500K).
PROV-T5-60LED-BW	IES Type 5 distribution. Bright white (5100K).
60 light emitting diode array (72 watts). Class 1, 120 thru 277 volt. 350mA drive current.	

PROV-H2	Type 2 horizontal reflector, flat tempered clear glass lens
PROV-H3	Type 3 horizontal reflector, flat tempered clear glass lens
PROV-H4	Type 4 horizontal reflector, flat tempered clear glass lens
PROV-H5	Type 5 horizontal reflector, flat tempered clear glass lens
PROV-V3	Type 3 vertical reflector, tempered clear sag glass lens
PROV-V5	Type 5 vertical reflector, tempered clear sag glass lens
PROV-INDA	Asymmetric indirect, indirect reflective optical system, metal halide ED-17 & T6 lamps only
PROV-INDS	Symmetric indirect, indirect reflective optical system, metal halide ED-17 & T6 lamps only

2 LAMP/BALLAST

CF	Compact fluorescent, electronic 120 thru 277 volt ballast. Use GX24q base, 26, 32 or 42 watt lamp. -18° C minimum starting temp. Direct only.
50MH	50 watt metal halide 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.
50MHEB	50 watt electronic metal halide 120 thru 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 metal halide 120/277/347 volt ballast. Use G12 base, T-6 ceramic lamp.
70MHT6EB	70 watt electronic 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.
150PSMH	Pulse start 150 watt metal halide 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.
150PSMHT6	Pulse start 150 watt metal halide 120/208/240/277 volt ballast. Use G12 base, T-6 ceramic lamp.
150MHEB	150 watt electronic metal halide 120 or 277 volt ballast. Use medium base, ED-17 lamp.
150MHT6EB	150 watt electronic metal halide 120 or 277 volt ballast. Use G12 base, T-6 ceramic lamp.
175PSMH	Pulse start 175 watt metal halide 120/208/240/277 volt ballast. Use medium base, ED-17 lamp. For vertical reflector only.
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.
350mA drive current. All ballasts are factory wired for 277 volts, unless specified. Lamps not included. All applicable ballasts are EISA compliant.	

ORDERING INFORMATION

PROV

ORDERING EXAMPLE

1. LUMINAIRE/LED CONFIGURATION	PROV-T3-60LED-BW
2. LAMP/BALLAST	N/A
3. OPTIONS	PFN
4. COLOR	WHT
5. MOUNTING	TRA55

3 OPTIONS

SPK	Decorative cast aluminum spikes on the top and bottom of the four vertical struts.
PFN	Cast aluminum finial painted a brass color.
BPS	Cast aluminum struts painted a brass color. Spikes also painted brass if chosen.
PCA-T	Rotatable photocell housing.
HSS	House side shield to cut off light behind the pole and shield the lamp from view. HSS not available for Type 5. Factory installed. Not for LED.
LDL	Lightly diffused lens. Frosted, flat tempered glass lens has a lightly diffused finish to minimize the lamp and reflector brightness.
QRS	Restrike controller and T-4 mini-can socket will light following power outage until HID reaches full brightness. (Lamp wattage not to exceed ballast wattage). For horizontal reflector only. Not for LED.
QL	Socket for T-4 mini-can lamp, field wired to a separate circuit. (Lamp wattage not to exceed ballast wattage). Must be field wired to a separate 120 volt circuit. For horizontal reflector only. Not for LED.

4 COLOR

All 13 standard and 5 premium AAL colors available. For RAL, please submit a 4-digit RAL number or color chip for custom colors.

5 MOUNTING

One-piece cast aluminum arms accept the standard 4" slip fitter on the Providence fixture. The arms are prewired with quick disconnects for easy installation.

SPECIFICATIONS
PROV

HOUSING

The fixture housing shall be two-piece die-cast aluminum. The internal reflector module is sealed from the outer housing with a one-piece, memory retentive, molded silicone gasket. The tempered flat glass lens shall be sealed to the housing with a silicone gasket. One recessed stainless steel latch shall release the door to allow access to the LED array.

REFLECTOR MODELS – REFLECTOR/LAMP

The upper lamp housing shall be die cast aluminum. The internal reflector module is sealed from the outer housing with a molded silicone gasket. The tempered glass lens shall be sealed to the housing with a silicone gasket. One stainless steel latch shall release the door to allow access the lamp. The reflector module shall be composed of faceted, specular and semi specular anodized aluminum panels rigidly attached in a die cast aluminum housing. The reflector shall be removed without tools by lifting it out of the four spring loaded posts. The reflector tray shall be rotatable on 90° centers for orienting the light distribution. The horizontal and vertical lamp reflectors shall meet ANSI-IES standards for full cutoff reflector systems.

REFLECTOR – BALLAST

The lower ballast housing shall be die cast aluminum. The tool-less ballast access for servicing is accomplished by a quarter turn motion of the top cover. The ballast shall be mounted on a prewired tray with a quick disconnect plug attached to the underside of the cover. HID ballasts are high power factor, rated for -30°C starting. Electronic ballasts for metal halide lamps are sound rated A. Sockets are medium base for ED-17 lamps, G12 for use with T6 lamps, All HID sockets are pulse rated porcelain. Ballasts are wired at the factory for 277 volts, unless specified. Compact fluorescent transformers shall accept 120 to 277 volt input and rated for -18°C starting.

INDIRECT MODELS – LOWER LAMP MODULE

The lower housing shall contain the lamp module. The cover shall be die cast aluminum with a tempered glass lens. The lamp shall be accessed by turning the lamp housing cover a quarter turn. The reflector shall be polished, anodized aluminum with an extremely narrow beam for directing the light to the upper reflector. Sockets are medium base for ED-17 lamps or G12 for use with T6 lamps, All sockets are pulse rated porcelain.

INDIRECT MODELS – UPPER REFLECTOR/BALLAST

The die cast aluminum upper housing shall contain the ballast assembly and the indirect reflector. The ballast shall be mounted on a prewired tray with a quick disconnect plug. The HID ballasts are high power factor, rated for -30°C starting. Ballasts are wired at the factory for 277 volts, unless specified. The indirect reflector is mounted to the underside of the upper housing. The reflector shall be die cast aluminum, finished in a high reflectance white. The indirect reflector models shall be IES classified as cutoff with less than 1% lumen output above 90 degrees.

UPGRADE KITS

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

ELECTRICAL

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.

MICROEMITTER™ REFLECTOR

Precision injection molded, high specular reflectors are positioned to achieve directional control toward desired task for IES cutoff classification. 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. Rated luminous efficacy for PROV is >40 lm/W, with rated light output of >2864 for 5100K LED, standard mount. MicroEmitters are field replaceable.

INSTALLATION & MOUNTING

The Medium (PROV) Providence shall be factory supplied as a complete, prewired assembly. The PROV fitter shall slip over a 4"/100 mm, the PROV fitter shall slip over a 5"/127 mm open top pole or 4"/100mm arm and be secured and leveled with 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 for outdoor, wet location use. Conforms to the UL1598 and Canadian CSA Std. C22.2 no.250 standard. IP55.

WARRANTY

Providence LED, including housing LEDs and electrical components, is warranted for five years. Providence HID is warranted for 3 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.

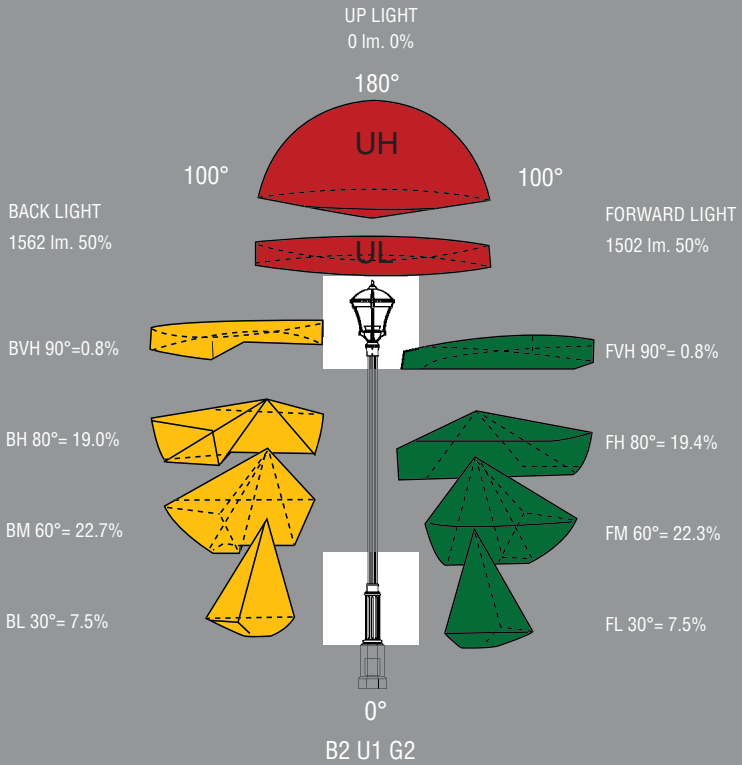
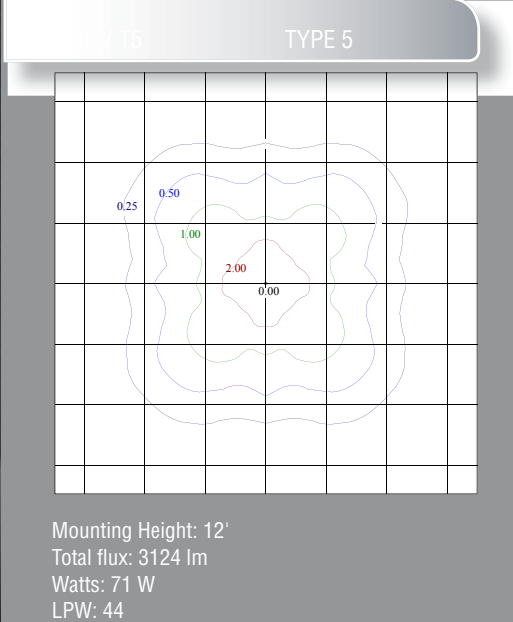
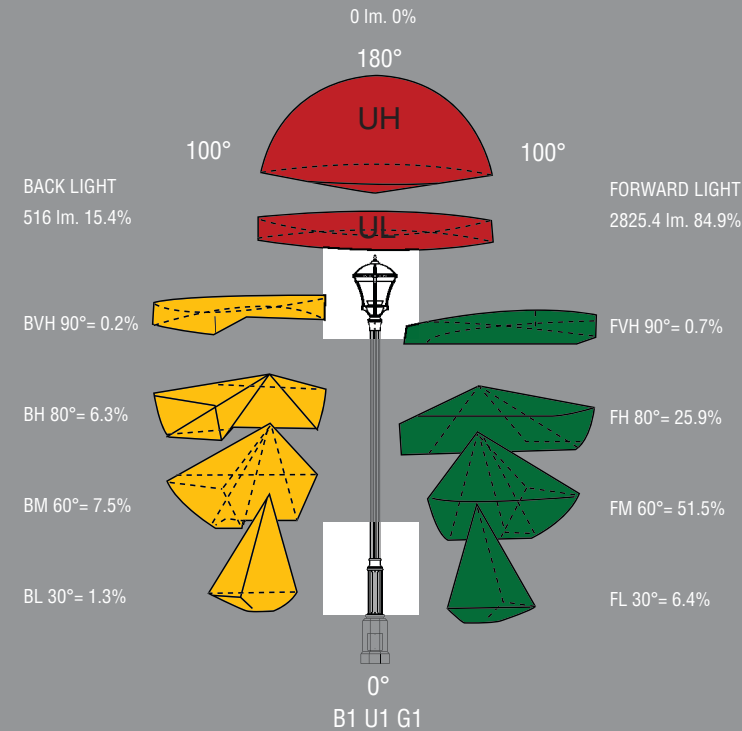
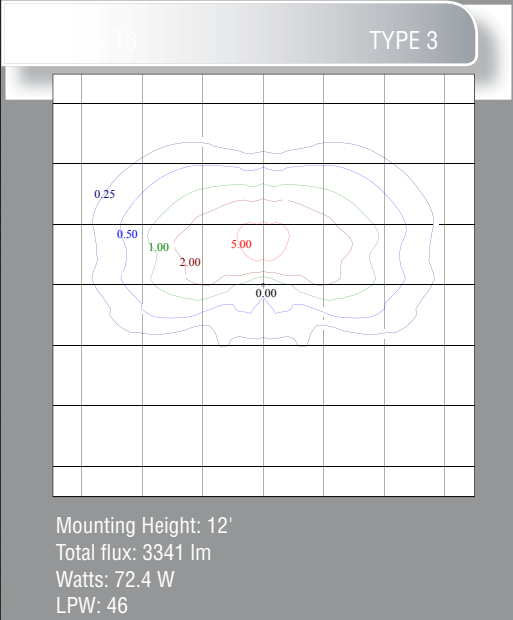
AAL reserves the right to change product specifications without notice.

AAL CodeLinkSM



PROV spec sheet

PHOTOMETRY
PROV





AAL CodeLinkSM



PROS spec sheet

Providence SMALL



1 LUMINAIRES

PROS-X	Horizontal LED.
PROS-DIRS	Symmetric direct reflective optical system. Full cutoff
PROS-INDA	Asymmetric indirect reflective optical system, 20 watt Mini Mastercolor only.
PROS-INDS	Symmetric indirect reflective optical system, 20 watt Mini Mastercolor only.

2 LAMP/BALLAST

18LED-WW	18 light emitting diode array (16.4 watts). Warm white (3500K). IES Type 1. 120 thru 277 volt.
18LED-BW	18 light emitting diode array (16.4 watts). Bright white (5100K). IES Type 1. 120 thru 277 volt.
27LED-WW	27 light emitting diode array (33.6 watts). Warm white (3500K). IES Type 3. 120 thru 277 volt.
27LED-BW	27 light emitting diode array (33.6 watts). Bright white (5100K). IES Type 3. 120 thru 277 volt.
36LED-WW	36 light emitting diode array (32.7 watts). Warm white (3500K). IES Type 5. 120 thru 277 volt.
36LED-BW	36 light emitting diode array (32.7 watts). Bright white (5100K). IES Type 5. 120 thru 277 volt.
20MMC	20 watt electronic metal halide 120 thru 277 volt ballast. Use PGJ5 base, Mini Mastercolor lamp.
39MMC	39 watt electronic metal halide 120 thru 277 volt ballast. Use PGJ5 base, Mini Mastercolor lamp.
39MHT6EB	39 watt electronic metal halide 120 thru 277 volt ballast. Use G12 base, T-6 ceramic lamp.
70MHT6EB	70 watt electronic metal halide 120 thru 277 volt ballast. Use G12 base, T-6 ceramic lamp.
CF	Compact fluorescent, electronic ballast 120 thru 277 volt. Use GX24q base, 26, 32 or 42 watt lamp. Specify wattage. -18°C minimum starting temp

*All ballasts are factory wired for 277 volts unless specified.
Lamps not included, except LED option. All applicable ballasts are EISA compliant*

ORDERING INFORMATION PROS

ORDERING EXAMPLE

1. LUMINAIRE	PROS - INDS
2. LAMP/BALLAST	20MMC
3. OPTIONS	SPK
4. COLOR	BLK
5. MOUNTING	TRA59D

3 OPTIONS

SPK	Decorative cast aluminum spikes on the top and bottom of the four vertical struts.
PFN	Cast aluminum finial painted a brass color.
BPS	Cast aluminum struts painted a brass color. Spikes also painted brass if chosen.
HSS	House side shield to cut off light behind the pole and shield the lamp from view. HSS not available for Type 5. Factory installed. Not for LED.
LDL	Lightly diffused lens. Frosted, flat tempered glass lens has a lightly diffused finish to minimize the lamp and reflector brightness. Not for LED.

4 COLOR

All 13 standard and 5 premium AAL colors available. For RAL, please submit a 4-digit RAL number or color chip for custom colors.

5 MOUNTING

One-piece cast aluminum arms accept the standard 3" slip fitter on the Providence fixture. The arms are prewired with quick disconnects. Wall mounted arms do not include wall mounting hardware. Pole mounted arms use 3/8-16 hardware bolts for attaching to the pole.

SPECIFICATIONS

PROS

REFLECTOR MODELS - REFLECTOR/LAMP

The upper lamp housing shall be die cast aluminum. The internal reflector module is sealed from the outer housing with a one piece, memory retentive, molded silicone gasket. The tempered glass lens shall be sealed to the housing with a silicone gasket. One stainless steel latch shall release the door to allow access to the lamp.

The reflector module shall be composed of a spun, specular aluminum panel rigidly attached in a die cast aluminum housing. The horizontal lamp reflectors (DIRS) shall meet ANSI-IES standards for full cutoff reflector systems.

REFLECTOR MODELS - BALLAST

The lower ballast housing shall be cast aluminum. The tool-less ballast access for servicing is accomplished by a quarter turn motion of the top cover. The ballast shall be mounted on a prewired tray with a quick disconnect plug attached to the underside of the cover. HID ballasts are high power factor, rated for -30°C starting. Electronic ballasts for metal halide lamps are sound rated A. Sockets are medium base, G12 for use with T6 lamps. All sockets are pulse rated porcelain. Ballasts are wired at the factory for 277 volts, unless specified. Compact fluorescent transformers shall accept 120 thru 277 volt input and rated for -18°C starting. The LED driver accepts 120 thru 277 volt input.

INDIRECT MODELS - LOWER LAMP MODULE

The lower housing shall contain the lamp module. The cover shall be die cast aluminum with a tempered glass lens. The lamp shall be accessed by turning the lamp housing cover a quarter turn. The reflector shall be polished, anodized aluminum with an extremely narrow beam for directing the light to the upper reflector. Sockets are PGJ5 for use with BT-5 lamps. All sockets are pulse rated porcelain.

INDIRECT MODELS - UPPER REFLECTOR/BALLAST

The die cast aluminum upper housing shall contain the ballast assembly and the indirect reflector. The ballast shall be mounted on a prewired tray with a quick disconnect plug. The HID ballasts are high power factor, rated for -30°C starting. Ballasts are multi-tap, wired at the factory for 277 volts. The indirect reflector is mounted to the underside of the upper housing. The reflector shall be die cast aluminum, finished in a high reflectance white. The indirect reflector models shall be IES classified as cutoff with less than 1% lumen output above 90 degrees.

INSTALLATION & MOUNTING

The PROS shall be factory supplied as a complete, prewired assembly. The fixture shall slip over a 3"/75mm open top pole or 4"/100mm pole mounted arm and secured and leveled with 3 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 for outdoor, wet location use, UL1598 and Canadian CSA Std. C22.2 no.250. IP=55.

WARRANTY

Fixture is warranted for three years. 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.

AAL reserves the right to change product specifications without notice.

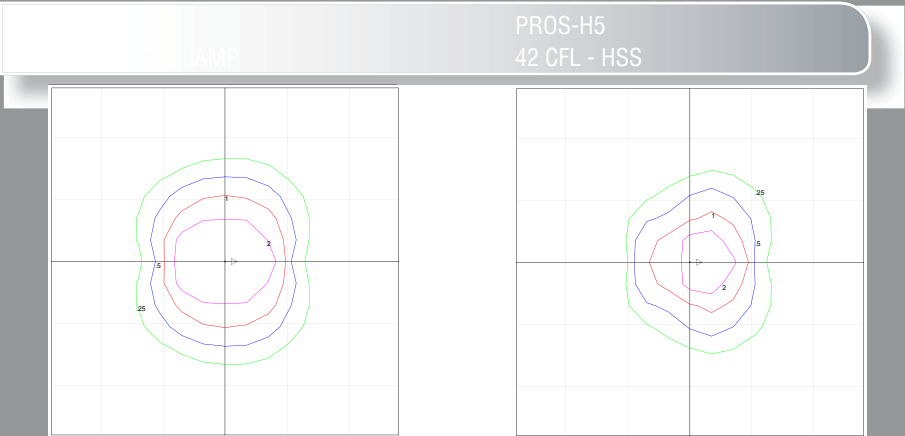
AAL CodeLinkSM



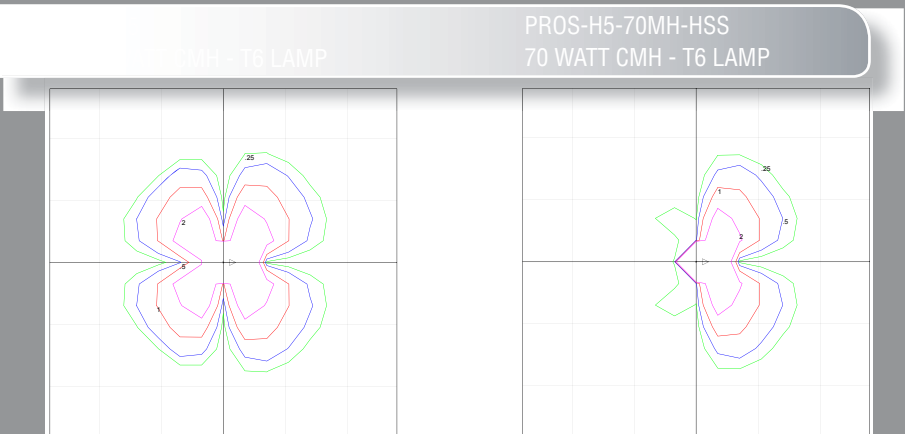
PROS spec sheet

PHOTOMETRY

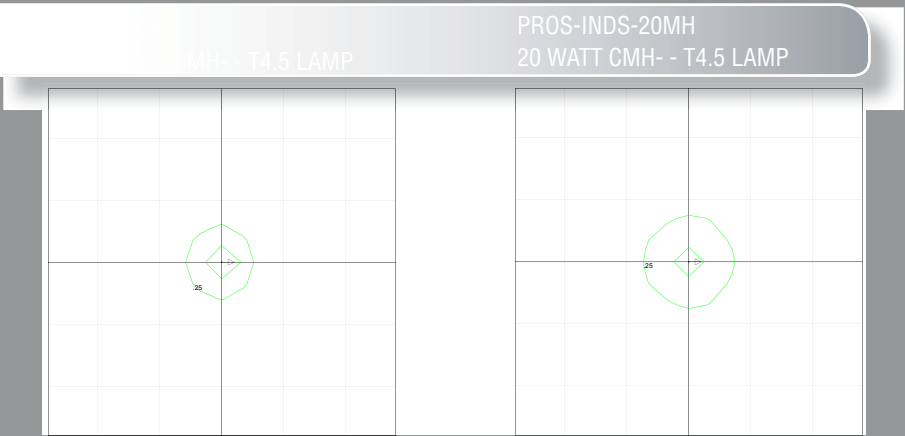
PROS



CONVERSION TABLE				
1.0 LLF, GRIDLINES = MTG. HT				
WATTAGE	FIXTURE MTG. HT. (IN FEET)			
	10	12	14	16
42CF	1.00	0.69	0.51	0.39



CONVERSION TABLE				
1.0 LLF, GRIDLINES = MTG. HT				
WATTAGE	FIXTURE MTG. HT. (IN FEET)			
	10	12	14	16
70MHT6	1.00	0.69	0.51	0.39



CONVERSION TABLE				
1.0 LLF, GRIDLINES = MTG. HT				
WATTAGE	FIXTURE MTG. HT. (IN FEET)			
	10	12	14	16
20MMC	1.00	0.69	0.51	0.39



1 LUMINAIRES

PROB	Symmetric horizontal optical system
------	-------------------------------------

2 LAMP/BALLAST

20MMC	20 watt electronic metal halide 120/277 volt ballast. Use a PGJ5 base, Mini MasterColor® lamp.
39MMC	39 watt electronic metal halide 120/277 volt ballast. Use a PGJ5 base, Mini MasterColor® lamp.
39MHT6EB	39 watt electronic metal halide 120 thru 277 volt ballast. Use a G12 base, T6 ceramic lamp.
50MH	50 watt metal halide 120/277 volt ballast. Use a medium base, ED-17 lamp.
50MHEB	50 watt electronic metal halide 120 thru 277 volt ballast. Use a medium base, ED-17 lamp.
70MH	70 watt metal halide 120/208/240/277 volt ballast. Use a medium base, ED-17 lamp.
70MHT6	70 watt metal halide 120/208/240/277 volt ballast. Use a G12 base, T6 ceramic lamp.
70MHEB	70 watt electronic metal halide 120 thru 277 volt ballast. Use medium base, ED-17 lamp.
70MHT6EB	70 watt electronic metal halide ballast, 120 thru 277 volt. Use a G12 base, T6 lamp.
100MH	100 watt metal halide 120/208/240/277 volt ballast. Use a medium base, ED-17 lamp.
100MHEB	100 watt electronic metal halide ballast 120 thru 277 volt. Use medium base, ED-17 lamp.
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.
CF	Compact fluorescent electronic ballast 120 thru 277 volt. Use a GX24q base, 26, 32 or 42 watt lamp.
18LED-WW	18 light emitting diode array. (19 watt). Warm white (3500K). IES Type 1. 120 thru 277 volt.
27LED-WW	27 light emitting diode array. (29 watt). Warm white (3500K). IES Type 3. 120 thru 277 volt.
36LED-WW	36 light emitting diode array. (37 watt). Warm white (3500K). IES Type 5. 120 thru 277 volt.
18LED-BW	18 light emitting diode array. (19 watt). Bright white (5100K). IES Type 1. 120 thru 277 volt.
27LED-BW	27 light emitting diode array. (29 watt). Bright white (5100K). IES Type 3. 120 thru 277 volt.
36LED-BW	36 light emitting diode array. (37 watt). Bright white (5100K). IES Type 5. 120 thru 277 volt.

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

ORDERING INFORMATION
PROB

ORDERING EXAMPLE

1. LUMINAIRE	PROB
2. LAMP/BALLAST	50MH
3. OPTIONS	HSS
4. COLOR	BLK
5. MOUNTING	PM

3 OPTIONS

HSS	House Side Shield. Not available with LED.
LDL	Lightly Diffused Lens
BBU	Battery backup powers the lamp for up to ninety minutes during a power failure Output of the 32 watt lamp will be 575 lumens. Output from the 42 watt lamp will be 750 lumens. Operating temperature 0°C to 55°C. For use with CF only. Integral.
PFC	Painted brass finial cap
BPS	Painted brass struts
DSC	Dark sky cap. Matte black body cap (shown at right).

4 COLOR

All 13 standard and 5 premium AAL colors available. For RAL, please submit a 4-digit RAL number or color chip for custom colors.

5 MOUNTING

FL	42" overall height x 5"/127mm dia, extruded fluted body
RD	42" overall height x 5"/127mm dia, extruded smooth body
PM	Semi recessed pier mount

SPECIFICATIONS
PROB

HOUSING

The fixture housing and base are cast aluminum free of any porosity, foreign materials, or cosmetic fillers. The shaft shall be 5 in/127 mm wide and 23 in/584 mm tall, extruded 6061-T6 aluminum yielding a fixture height of 42 inches. The ballast is mounted internally and accessed by loosening three set screws and lifting the fixture head off the shaft. Relamping is done by loosening a captive screw on the side of the dome, directly opposite the hinge, and tilting the dome lid back. The lens is tempered glass, sealed to the housing with a silicone gasket. All internal and external hardware is stainless steel. The fixture is sealed to prevent dust, insect or moisture contamination by using one-piece, memory retentive, molded silicone gaskets. The fixture features tamper resistant hardware.

ELECTRICAL

The ballast is integral to the fixture, mounted on a prewired module with a quick disconnect plug. The ballast module has two keyhole slots and is removable by loosening two screws. All components and materials are U.L. recognized. Sockets are pulse rated porcelain. HID ballasts are high power factor, rated for -30°C starting. Medium base porcelain sockets are 4KV rated. Ballasts are wired at the factory for 277 volts, unless specified. Compact fluorescent transformers are electronic, 120 through 277 volt for 26, 32 or 42 watt 4 pin lamps.

REFLECTOR

The reflector module shall be composed of a spun, specular aluminum panel rigidly attached to the die cast aluminum housing. The horizontal lamp reflectors shall meet ANSI-IES standards for full cutoff classification.

FINISH

Fixture finish shall consist 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 is listed with ETL for outdoor, wet location use, UL1598 and Canadian CSA Std. C22.2 NO.250. IP Rating: 66

WARRANTY

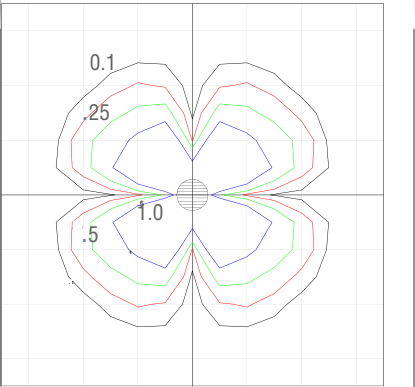
Fixture is warranted for three years. Ballast components carry the ballast manufacturer's limited warranty. Any unauthorized return, repair, replacement or modification of the Product(s) shall void this warranty. This warranty applies only to the use of the Product(s) as intended by AAL and does not 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.

AAL reserves the right to change product specifications without notice.

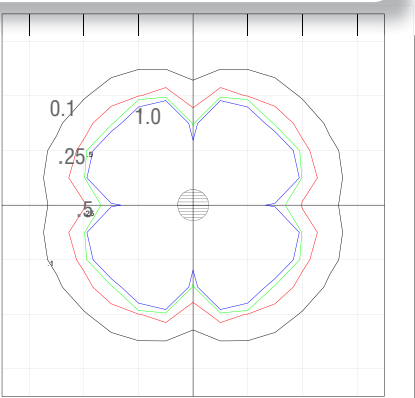


PHOTOMETRY
PROB

PROB-20MMC



PROB-39MMC



The values below are in initial footcandles. Discount values to account for light losses due to voltage, temperature and atmospheric variations which affect light output. Mounting height is to the lamp center. All testing performed by a certified independent laboratory. Photometry is available in IES formatted files at www.aal.net.

Table with 2 columns: WATTAGE, FIXTURE MTG. HT. (IN FEET). Rows include 20MMC and 39MMC.



Providence SCONCE



1 LUMINAIRES

PRSC-2	Horizontal Type 2
PRSC-3	Horizontal Type 3
PRSC-4	Horizontal Type 4
PRSC-W	Horizontal Column Accent/ Narrow Beam
PRSC-X	Horizontal LED, CF or IL

2 OUT PUT OPTIONS

1D	Single source 100% primary output
2D	Up:down single source 94% primary with 6% secondary opposing output. Not for PRSC-W or LED.
2DPB	Up:down single source with pencil beam uplight. Not for PRSC-W or LED.
2R	Up:down dual source R111 as secondary opposing output. Available with 39MHT6EB-R111 ballast only.

3 LAMP/BALLAST

	FOR PRSC-2 / PRSC-3 / PRSC-4 / PRSC-W
20MMC	20 watt electronic metal halide 120/277 volt ballast. Use PGJ5 base, Mini MasterColor® lamp.
39MMC	39 watt electronic metal halide 120/277 volt ballast. Use PGJ5 base, Mini MasterColor® lamp.
39MHT6	39 watt magnetic metal halide 120/277 volt ballast. Use G12 base, T6 ceramic lamp.
39MHT6EB	39 watt electronic metal halide 120 thru 277 volt ballast. Use G12 base, T6 ceramic lamp.
39MHT6EB-R111	39 watt electronic metal halide 120 thru 277 volt ballast. For use with 2R option only.
50MH	50 watt metal halide 120/277 volt ballast. Use medium base, ED-17 lamp.
50MHEB	50 watt electronic metal halide 120 thru 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.
70MHT6	70 watt metal halide 120/208/240/277 volt ballast. Use G12 base, T6 ceramic lamp.
100MH	100 watt metal halide 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.
150PSMH	Pulse start metal halide 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.
150PSMHT6	Pulse start metal halide 120/277 volt ballast. Use G12 base, T6 ceramic lamp.
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.
60CO	60 watt electronic ballast for Philips® Cosmo 200 thru 277 volt ballast. Use PGZ12 base cosmo lamp.
	FOR PRSC-X
36LED-WW	36 light emitting diode array (37 watt). Warm white (3500K). 120 thru 277 volt.
36LED-BW	36 light emitting diode array (37 watt). Bright white (5100K). 120 thru 277 volt.
CF1	Horizontal Single CF, 120 thru 277 volt. GX24q base, 26, 32 or 42 watt lamp. Specify wattage.
CF2	Horizontal Pair of CF, 120 thru 277 volt. GX24q base, 26, 32 or 42 watt lamp. Specify wattage.
IL55	Horizontal 55 watt Induction system. 120, 208, 240 or 277 volt. -25°C min start temp.

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

4 OPTIONS

	INTERNAL OPTIONS
QRS	Restrike controller and T-4 mini-can socket will light following power outage until HID reaches full brightness. (Lamp wattage not to exceed ballast wattage). For horizontal reflector only. Not for LED.
QL	Socket for a T-4 mini-can halogen lamp. Must be field wired to a separate 120 volt circuit (Lamp wattage not to exceed ballast wattage). Not available for LED, CF1, CF2 or IL55 configuration.
SCB	Surface Conduit Box. 1/2" NPT inlets on each side. Gasketed bottom cover for wire access. Standard finish is white.
LDL	Lightly diffused glass lens to conceal the reflector and decrease visual brightness and glare.
BBU	Battery backup powers the lamp for up to ninety minutes during a power failure. Output of the 32 watt lamp will be 575 lumens. Output from the 42 watt lamp will be 750 lumens. Operating temperature is 0°C to 55°C. For CF1 or CF2 configuration only. Integral.
347	120/240/347 volt ballast for HID lamp/ballast except the 50MH and 50HPS watt ballast.. Not available for 2R output.
SPC12	120 volt swivel type photocell. Factory wired at 120 volt. Only available with 1D output (Photocell replaces finial)
SPC27	208/240/277 volt swivel type photocell. Factory wired. Specify voltage. Only available with 1D output (Photocell replaces finial)
BPC12	Photocell Button Type 120V. Only available with 1D output (Photocell replaces finial).
BPC27	Photocell Button Type 208/240/277 volt. Only available with 1D output (Photocell replaces finial).
TPC	Photocell Twist-Lok. Only available with 1D output (Photocell replaces finial). Photocell by others.
R24	Secondary source R111 Lamp with 24° Flood Pattern. Only available with 2R output.
R40	Secondary source R111 Lamp with 40° Flood Pattern. Only available with 2R output.
	DECORATIVE OPTIONS
PFN	Cast aluminum finial painted brass color. Only available with 1D output.
DSB	Dome spikes painted brass color.
DSP	Dome spikes painted to match fixture color.

5 COLOR

All 13 standard and 5 premium AAL colors available. For RAL, please submit a 4-digit RAL number or color chip for custom colors.

ORDERING INFORMATION PRSC

ORDERING EXAMPLE

1. LUMINAIRE	PRSC-3
2. OUTPUT OPTIONS	1D
3. LAMP/BALLAST	20MMC
4. OPTIONS	QRS
5. COLOR	BLK

AAL CodeLinkSM

PRSC spec sheet

SPECIFICATIONS
PRSC

HOUSING

The fixture housing is one-piece cast aluminum. The access door is cast aluminum, hinged and secured with two spring latches for relamping and internal access. The primary lens is molded tempered glass with a crowned shape to shed water. The single source bi-directional configuration uses a diffused lens to evenly illuminate the wall, and the dual source configuration uses a clear lens. The access door is sealed with a memory retentive, Rubatex, closed cell gasket. The rear electrical access has a molded silicone plug to completely seal the fixture from insects or dirt emanating from the electrical box or conduit. All internal and external hardware is stainless steel.

OPTICAL ASSEMBLY

The reflector module is composed of faceted, semi specular anodized aluminum panels rigidly attached in an aluminum module. The reflector module is easily removed from the ballast bracket by loosening four screws and lifting it out. The 2D uplight + downlight version includes a second reflector assembly attached to the ballast bracket which directs the light energy to the diffused lens used for the secondary light output. The 2R uplight + downlight version has a bracket assembly used to direct light from a R111 light source through the secondary clear lens. The reflectors shall meet ANSI-IES standards for full cut-off classification.

ELECTRICAL

The ballast is mounted on a prewired module with a quick disconnect plug and removed by loosening three captive quarter-turn fasteners. HID ballasts are high power factor, rated for -30°C starting. Sockets are medium base, pulse rated porcelain. Compact fluorescent sockets for a 26, 32, or 42 watt lamp are 4 pin, GX24q-4, with an electronic ballast, 0°F starting. Ballasts are prewired at the factory for 277 volts, unless specified.

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.

INSTALLATION

To install the fixture, the die cast wall plate is secured to an octagonal j-box and wired to the power circuit. The fixture is plugged into a quick disconnect and then hooked onto the wall plate. Two captive screws are then tightened to secure the fixture to the wall plate. The fixture may be inverted if desired.

CERTIFICATION

The fixture is listed with ETL for outdoor, wet location use, in both an up and down orientation, UL1598 and Canadian CSA Std. C22.2 NO.250. IP Rating: 66

WARRANTY

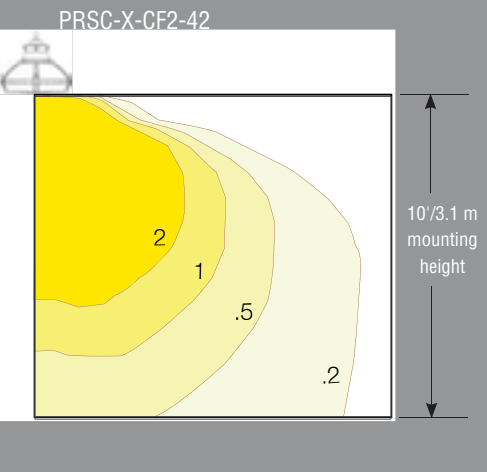
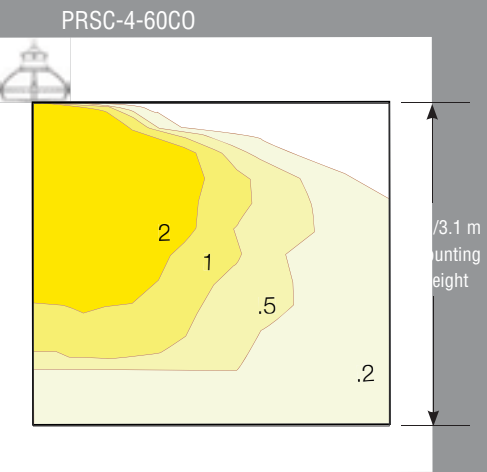
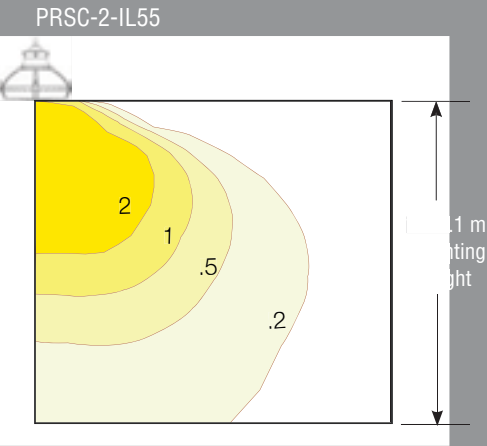
Fixture is warranted for three years. Ballast components carry the ballast manufacturer's limited warranty. Any unauthorized return, repair, replacement or modification of the Product(s) shall void this warranty. This warranty applies only to the use of the Product(s) as intended by AAL and does not 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.

AAL reserves the right to change product specifications without notice.



PHOTOMETRY
PROB

VERTICAL FOOTCANDLES ON THE WALL – MOUNTING HEIGHT 10 FEET.	HORIZONTAL FOOTCANDLES ON THE GROUND – MOUNTING HEIGHT 10 FEET. LLF=.8
--	---





Providence[®]

Sustainability with
Style



Providence®



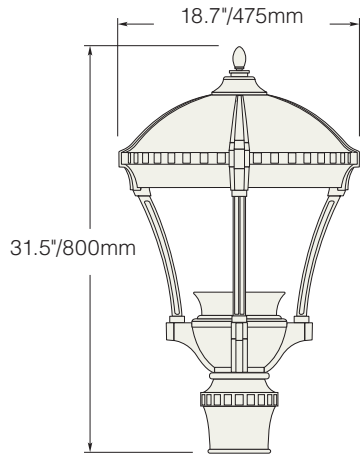
Architectural Area Lighting
16555 East Gale Ave. | City of Industry | CA 91745
T 626.968.5666 | F 626.369.2695 | www.aal.net/aal/providence.html

© 2011 Architectural Area Lighting | Design Patents Pending | Made in the USA | Rev Providence 1111

FEATURES

- DLC Qualified
- Reliable, uniform, glare free illumination
- Types II, III, IV, V and custom distributions
- 3000K, 4200K, 5100K CCT
- 0-10V dimming ready
- Integral surge suppression
- LifeShield™ thermal protection
- 13 standard powder coat finishes
- Upgrade Kits

SPECIFICATIONS



- Diameter: 18.7" / 475 mm
- Height: 31.5" / 800 mm
- Weight: 29 lbs
- EPA: 0.96
- IP Rating: 65



ORDERING INFORMATION

MODEL	1	2	3	4	5	6	7
PROV							
	Light Engine	CCT	Drive Current	Color	Options	Controls	Mounting

1. LIGHT ENGINE

MicroCore Upgrade Kit Precision aimed optics

- ☐ T2-32LED
- ☐ T3-32LED
- ☐ T4-32LED
- ☐ T5-32LED
- ☐ TL-32LED
- ☐ TR-32LED

P2
P3
P5

2. COLOR TEMPERATURE

- ☐ 3K
- ☐ 4K
- ☐ 5K

3. DRIVE CURRENT

- ☐ 700
- ☐ 450

4. COLOR

- ☐ AWT
- ☐ BLK
- ☐ MTB
- ☐ DGN
- ☐ DBZ
- ☐ WRZ
- ☐ BRM
- ☐ VBL
- ☐ CRT
- ☐ MAL
- ☐ MDG
- ☐ ATG
- ☐ LGY
- ☐ RAL/PREMIUM COLOR
- ☐ CUSTOM COLOR

5. OPTIONS

- ☐ SPK (Decorative spike)
- ☐ BPS (Struts painted brass)
- ☐ LDL (Lightly diffused lens)
- ☐ CLR (Clear flat lens)
- ☐ HSS (House side shield)
- ☐ PFN (Finial painted brass)
- ☐ EPA-C (Egress-Contemporary)
- ☐ EPA-T (Egress-Traditional)
- ☐ PCA-C (Rotatable photocell-Contemporary)
- ☐ PCA-T (Rotatable photocell-Traditional)

6. CONTROL

- ☐ WIH (Integral HBA w iHUBB IFM transceiver and antenna)
- ☐ SCP⁹ (Programmable motion control, factory default is 50%)

7. MOUNTING

Standard configuration slips over a 4" DIA open top pole or may choose one.

Wall Mount Arm

- ☐ WMA7
- ☐ WMA55
- ☐ WMA56
- ☐ WMA57
- ☐ WMA9U
- ☐ WMA22U

Pole Mount Arm

- ☐ TRA5U-4
- ☐ TRA6U-4
- ☐ TRA55
- ☐ TRA55-5
- ☐ TRA56
- ☐ TRA57-4
- ☐ TRA57-5
- ☐ SLA1
- ☐ SLA1-2
- ☐ SLA8U-4
- ☐ SLA8U-5
- ☐ SLA22U-4
- ☐ SLA22U-5

Pier Mount

- ☐ PM1
- ☐ PM2
- ☐ PM3

LUMINAIRE PERFORMANCE

Optical System	Secondary Lens or Shield	Distribution	Light Engine	Ordering Code																Drive Current	System Watts
				3K				4K				5K									
				Delivered Lumens	Efficacy (Lm/W)	BUG Rating		Delivered Lumens	Efficacy (Lm/W)	BUG Rating		Delivered Lumens	Efficacy (Lm/W)	BUG Rating							
MicroCore	No Lens (Standard)	TYPE 2	T2-32LED	3796	51	1	0	2	5013	67	2	0	2	5449	73	2	0	3	700	75	
		TYPE 3	T3-32LED	3925	52	1	0	2	5183	69	1	0	3	5633	75	1	0	3			
		TYPE 4	T4-32LED	3740	50	0	0	1	4953	66	1	0	2	5375	72	1	0	2			
		TYPE 5	T5-32LED	3814	51	3	0	2	5058	67	3	0	2	5497	73	3	0	2			
		45° Left	TL-32LED	3887	52	1	0	1	4649	62	1	0	2	5115	68	1	0	2			
		45° Right	TR-32LED	3887	52	1	0	1	4649	62	1	0	2	5115	68	1	0	2			
	HSS	TYPE 4	T3-32LED	2726	36	0	0	2	3663	49	0	0	2	3911	52	0	0	2	450	48	
	No Lens (Standard)	TYPE 2	T2-32LED	2429	51	1	0	2	3208	67	1	0	2	3497	73	1	0	2			
		TYPE 3	T3-32LED	2512	52	1	0	2	3317	69	1	0	2	3605	75	1	0	2			
		TYPE 4	T4-32LED	2394	50	0	0	1	3170	66	0	0	1	3440	72	0	0	1			
		TYPE 5	T5-32LED	2441	51	2	0	1	3237	67	2	0	2	3518	73	2	0	2			
		45° Left	TL-32LED	2488	52	0	0	1	2976	62	1	0	1	3273	68	1	0	1			
		45° Right	TR-32LED	2488	52	0	0	1	2976	62	1	0	1	3273	68	1	0	1			
	HSS	TYPE 4	T4-32LED	1745	36	0	0	1	2344	49	0	0	1	2503	52	0	0	2			

* DesignLights Consortium® Qualified Product



ELECTRICAL CHARACTERISTICS

Optical System	Ordering Code		LED Drive mA	System Watts	Driver							Dimming						
					Line Voltage		Amps AC		Min. Power Factor	Max THD (%)	Operating Temp. Range	Dimming Range	Source current out of 0-10V purple wire			Absolute voltage range on 0-10V (+) purple wire		
					VAC	HZ	120	277					Min	Typical	Max	Min	Typical	Max
MicroCore	32LED	700	700	75	120-277	50/60	0.6	0.3	≥ 9	20	-30°C TO +40°C	10% TO 100%	0 MA	-	2 MA	-2.0 V	-	+15 V
		450	450	48			0.4	0.2										

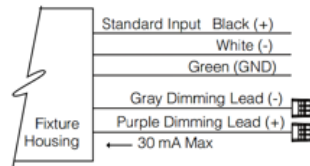
LED COLOR

Consult factory for Amber, Turtle Friendly, Gulf Coast and Observatory applications.

	Ordering Code		
	3K	4K	5K
CCT Average	3000K	4200K	5100K
CCT Range	2800K – 3175K	3800K – 4600K	4600K – 5600K
CRI Minimum	≥ 80	≥ 70	≥ 70

WIRING LEADS

Luminaires not configured with wiHUBB or photo-control shall be provided with 0-10 purple and gray dimming leads.



TM-21 LIFETIME CALCULATION

Optical System	Ordering Code	Ambient Environment °C	Projected Lumen Maintenance (% vs. Khrs)					Reported L70
			15	25	50	TM-21* 60	100	
MicroCore	32LED	15	93	91	87	84	78	>60Khrs
		25	93	91	87	85	78	
		40	93	91	87	85	78	



ARCHITECTURAL AREA LIGHTING
16555 East Gale Ave. | City of Industry | CA 91745
P 626.968.5666 | F 626.369.2695 | www.aal.net
Copyright © 2014 June 2014

JOB _____
TYPE _____
NOTES _____

SPECIFICATIONS

HOUSING

- Luminaire shall have discrete optical and gear compartments that do not share any physical housings.
- All housing components shall be die-cast aluminum, sealed with continuous silicone rubber gaskets.
- Standard configurations do not require a flat lens, optional lenses shall be tempered glass
- All internal and external hardware shall be stainless steel.
- Optical bezel finish shall match the luminaire housing.

OPTICAL

- Patent pending MicroCore™ LED modules shall independently aim each light emitting diode (LED) in both horizontal rotation and vertical tilt angle.
- LEDs shall be mounted to a metal printed circuit board assembly (PCBA) with a uniform conformal coating over the panel surface and electrical features.
- LED optics shall be clear injection molded PMMA acrylic.
- MicroCore™ PCBA and optic shall be sealed to a die-cast anodized aluminum heat sink with an injection molded silicone rubber gasket. IP66.

ELECTRICAL

- Luminaires shall have integral surge protection that shall be U.L. recognized and have a surge current rating of 10,000 Amps using the industry standard 8/20uSec wave and surge rating of 372J.
- Drivers shall be U.L. recognized with an inrush current maximum of <20.0 Amps maximum at 230VAC.
- Drivers shall not be compatible with current sourcing dimmers, consult factory for current list of known compatible dimming systems, approved dimmers include Lutron Diva AVTV, Lutron Nova NFTV and NTFTV.
- LifeShield™ shall be provided with all configurations for added protection in the event of abnormally excessive high ambient temperature conditions.

CONTROLS

- wiHUBB® In-fixture Module shall operate at 900 MHz in a self-healing mesh network, luminaires configured with wiHUBB® shall be required to be commissioned on site with a wiHUBB® access point.

PHOTOCELL / EGRESS ADAPTERS

- Adapter(s) shall slip over a 4"/100mm DIA. pole with the luminaire or arm slipping over the adapter to add a total of 4.5"/114mm to the overall height. Adapter(s) shall be prewired, independently rotatable 359°, and have a cast access cover with an integral lens and lanyard.
- Photocell adapter shall include an internal twist lock receptacle. Photocell by others.
- Egress adapter shall require an auxiliary 120 volt supply for operation of an integral MR16 lamp in the event of emergency. The lamp may be aimed and locked into position with an adjustment range of 15°-45°. Adapter shall have a socket that accepts miniature bi-pin MR16 lamps up to 50 watts, lamp by others.

SERVICING

- Luminaire shall have tool-less service access to the gear compartment. Driver and surge suppressor shall be mounted to a prewired tray with quick disconnects that may be removed from the gear compartment.

ARM MOUNTING

- Luminaire shall slip over mounting arm and secured with three stainless steel 5/16-18 set screws.

FINISH

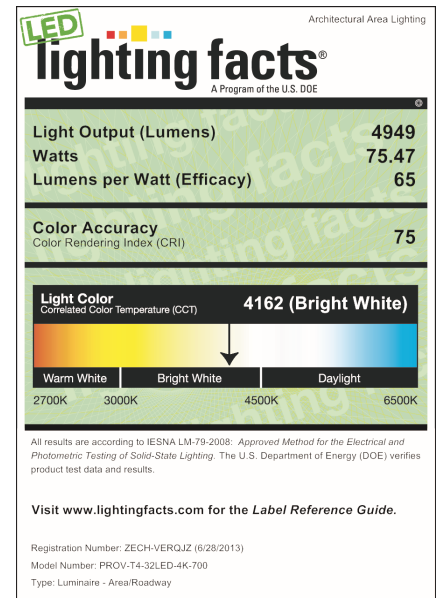
- Luminaire finish shall consist of a five stage pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish.
- Luminaire finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray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

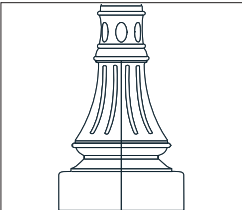
CERTIFICATION

- Luminaire shall be listed with ETL for outdoor, wet location use, UL1598, UL 8750 and Canadian CSA Std. C22.2 no.250.

WARRANTY

- Luminaire housing, arm, adapter, optical module, driver, internal wiring and electrical components shall be warranted for five years, surge protector shall be warranted by the component manufacturer.
- Luminaire exterior finish shall be warranted for ten 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 any misapplication or misuse of said Product(s), or installation in hazardous or corrosive environments.



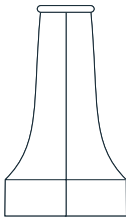


BC7

1. BASE

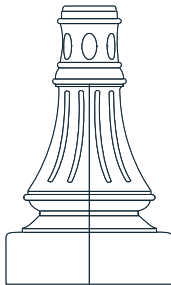
2. COLOR

1. BASE



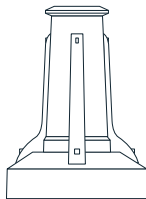
- ☐ BC5-4 *(Fits over a 4"/100mm round pole)*
- ☐ BC5-5 *(Fits over a 5"/125mm round pole)*

14"/350mm DIA x 24"/610mm high.
Two piece clamshell.



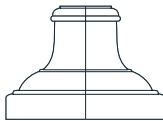
- ☐ BC7-4 *(Fits over a 4"/100mm round pole)*
- ☐ BC7-5 *(Fits over a 5"/125mm round pole)*

18"/460mm DIA x 30"/760mm high.
Two piece clamshell with a one piece upper collar.



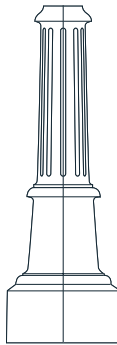
- ☐ ACBCR *(Fits over a 4"/100mm round pole)*

14"/356mm DIA x 18"/460mm high
One piece cover with a two piece upper collar.



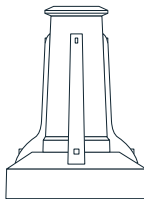
- ☐ BC6-4 *(Fits over a 4"/100mm round pole)*
- ☐ BC6-5 *(Fits over a 5"/125mm round pole)*

17"/430mm DIA x 13"/330mm high
Two piece clamshell.



- ☐ BC8-4 *(Fits over a 4"/100mm round pole)*

12"/305mm DIA x 36"/915mm high.
Two piece clamshell.



- ☐ ACBCS *(Fits over a 4"/100mm square pole)*

14"/356mm square x 18"/457mm high.
One piece cover with a two piece upper collar.

SPECIFICATIONS

Two piece base covers are cast #356 aluminum that fit over standard 4"/100mm or 5"/125mm round poles. Covers are attached with stainless steel hardware. Consult your AAL catalog for complete details on round poles.

WARNINGS

Caution must be exercised in the selection of a design wind speed when the pole is to be installed in a special wind region (as indicated by the wind map) or in an area where wind speed is unpredictable.

AAL recommends consulting a local engineer when the pole is to be installed in an area that may be subject to extreme weather and exposure

Poles installed on structures such as buildings and bridges may be subjected to vibration, oscillations, and other fatigue effects which are not covered by the AAL warranty.

The use of banners or other appendages can severely affect the loading of a pole. No banner or other appendage should be attached to an AAL pole unless approved by AAL.

If the products are to be used on an existing foundation or on other structures, the customer assumes all responsibility for the structural integrity of the existing foundation, anchorage or structures and all the consequences arising therefrom.

2. COLOR

- ☐ AWT *(Arctic White)*
- ☐ BLK *(Black)*
- ☐ MTB *(Matte Black)*
- ☐ DGN *(Dark Green)*
- ☐ DBZ *(Dark Bronze)*
- ☐ WRZ *(Weathered Bronze)*
- ☐ BRM *(Metallic Bronze)*
- ☐ VBL *(Verde Blue)*
- ☐ CRT *(Corten)*
- ☐ MAL *(Matte Aluminum)*
- ☐ MDG *(Medium Grey)*
- ☐ ATG *(Antique Green)*
- ☐ LGY *(Light Grey)*
- ☐ RAL/PREMIUM COLOR *(Provide RAL)*
- ☐ CUSTOM COLOR *(Provide color chip for matching)*

JOB _____

TYPE _____

NOTES _____

PR4 – Aluminum Pole

TYPE

4" ROUND (RD) POLE



PR4

1. BASE	2. POLE	3. OAH	4. COLOR
---------	---------	--------	----------

			MAXIMUM ALLOWABLE EPA (MPH)											
1. BASE	2. POLE	3. OAH	SHAFT	WT	85	90	100	110	120	130	140	150		
<input type="checkbox"/> PR4	4R10-125	10' (3.1m)	4" RD x .125"	25	19.4	17.1	13.5	10.8	8.9	7.4	6.3	5.5		
<input type="checkbox"/> PR4	4R12-125	12' (3.7m)	4" RD x .125"	28	15.3	13.4	10.5	8.3	6.7	5.6	4.7	4.0		
<input type="checkbox"/> PR4	4R14-125	14' (4.3m)	4" RD x .125"	32	12.3	10.7	8.2	6.3	5.0	4.1	3.4	2.9		
<input type="checkbox"/> PR4	4R16-125	16' (4.9m)	4" RD x .125"	35	10.0	8.6	6.4	4.8	3.6	2.9	2.4	2.0		
<input type="checkbox"/> PR4	4R10-226	10' (3.1m)	4" RD x .226"	38	23.8	21.0	16.7	13.5	11.1	9.3	8.0	6.9		
<input type="checkbox"/> PR4	4R12-226	12' (3.7m)	4" RD x .226"	44	19.2	16.9	13.3	10.6	8.6	7.2	6.1	5.3		
<input type="checkbox"/> PR4	4R14-226	14' (4.3m)	4" RD x .226"	51	15.9	13.9	10.8	8.4	6.8	5.6	4.7	4.0		
<input type="checkbox"/> PR4	4R16-226	16' (4.9m)	4" RD x .226"	57	12.4	12.3	9.4	7.3	5.7	4.7	4.0	3.3		
<input type="checkbox"/> PR4	4R18-226	18' (5.5m)	4" RD x .226"	63	11.7	10.0	7.5	5.6	4.3	3.5	2.9	2.4		
<input type="checkbox"/> PR4	4R20-226	20' (6.2m)	4" RD x .226"	70	9.5	8.1	5.9	4.2	3.1	2.4	1.9	1.6		

Note: Overall height is measured to top of pole.

SPECIFICATIONS

Base shall be cast aluminum #356 alloy, free of any porosity, foreign materials, or cosmetic fillers. Base casting shall be heat treated to a T-6 condition, and of uniform wall thickness, with no warping or mold shifting.

WARNINGS

Caution must be exercised in the selection of a design wind speed when the pole is to be installed in a special wind region (as indicated by the wind map) or in an area where wind speed is unpredictable.

AAL recommends consulting a local engineer when the pole is to be installed in an area that may be subject to extreme weather and exposure

Poles installed on structures such as buildings and bridges may be subjected to vibration, oscillations, and other fatigue effects which are not covered by the AAL warranty.

The use of banners or other appendages can severely affect the loading of a pole. No banner or other appendage should be attached to an AAL pole unless approved by AAL.

If the products are to be used on an existing foundation or on other structures, the customer assumes all responsibility for the structural integrity of the existing foundation, anchorage or structures and all the consequences arising therefrom.

CAUTION

Poles should never be erected without the luminaire installed. Warranty is voided if the pole is erected without the luminaire. The warranty is voided if the pole is not grouted under the entire base after installation.

Anchor bolts shall be hot dip galvanized steel. Eight galvanized hex nuts and flat washers, and a bolt circle template shall be provided. Anchor bolt for poles are 3/4" x 24" x 3".

4. COLOR

- | | |
|---|---|
| <input type="checkbox"/> AWT (Arctic White) | <input type="checkbox"/> CRT (Corten) |
| <input type="checkbox"/> BLK (Black) | <input type="checkbox"/> MAL (Matte Aluminum) |
| <input type="checkbox"/> MTB (Matte Black) | <input type="checkbox"/> MDG (Medium Grey) |
| <input type="checkbox"/> DGN (Dark Green) | <input type="checkbox"/> ATG (Antique Green) |
| <input type="checkbox"/> DBZ (Dark Bronze) | <input type="checkbox"/> LGY (Light Grey) |
| <input type="checkbox"/> WRZ (Weathered Bronze) | <input type="checkbox"/> RAL/PREMIUM |
| <input type="checkbox"/> BRM (Metallic Bronze) | COLOR (Provide RAL) |
| <input type="checkbox"/> VBL (Verde Blue) | <input type="checkbox"/> CUSTOM COLOR |
| | (Provide color chip for matching) |

JOB _____
TYPE _____
NOTES _____



ARCHITECTURAL AREA LIGHTING
16555 East Gale Ave. | City of Industry | CA 91745
P 626.968.5666 | F 626.369.2695 | www.aal.net
Copyright © 2012 | REV 6.12

4" ROUND (RD) POLE

DIMENSIONS

