

Colgate Divinity School Campus - Redevel Project

Date Jul 25, 2019
Project Name Colgate Divinity School Campus - Redevel
Project Number 6702
Project File 2019-07-24 6702 Divinity Campus Site Lighting.PZP

Project Location: Colgate Divinity School Campus - Redevel

Project Description:
Site Lighting for Parking Areas, Walkway and Drives

Prepared By:
M. Montalto

Prepared For:
Angelo Ingrassia

Project Schedule

Date Jul 25, 2019
Project Name Colgate Divinity School Campus - Redevel
Project Number 6702
Project File 2019-07-24 6702 Divinity Campus Site Lighting.PZP
Group Name <All Groups>
Power Density 0.00 Watts/Sq. Ft

Luminaires Used

TYPE	QTY	TEST#	DESCRIPTION
PM27	2	PROV-T2-	ARCHITECTURAL A, PROV-T2-32LED-3K-700 PROV DATA SHOWN IS ABSOLUTE. <i>LAMPS: (1), 5265 LUMENS</i> <i>BLST: , WATTS= 74</i>
PM37	95	PROV-T3-	ARCHITECTURAL A, PROV-T3-32LED-3K-700 PROV DATA SHOWN IS ABSOLUTE. <i>LAMPS: (1), 5707 LUMENS</i> <i>BLST: , WATTS= 74</i>
PM47	5	PROV-T4-	ARCHITECTURAL A, PROV-T4-32LED-3K-700 PROV DATA SHOWN IS ABSOLUTE. <i>LAMPS: (1), 5193 LUMENS</i> <i>BLST: , WATTS= 74</i>
PM57	3	PROV-T5-	ARCHITECTURAL A, PROV-T5-32LED-4K-700 PROV DATA SHOWN IS ABSOLUTE. <i>LAMPS: (1), 5939 LUMENS</i> <i>BLST: , WATTS= 74</i>
PS2	20	PROS-Y2-	ARCHITECTURAL A, PROS-Y2-3030 PROVIDENCE: DIE-CAST ALUMINUM GLASS LENS, <i>LAMPS: (1) NICHIA 219C, 2975 LUMENS</i> <i>BLST: OT50W/UNV/1250C, WATTS= 43</i>

Luminaires Used

(continued)

TYPE	QTY	TEST#	DESCRIPTION
PS3	5	PROS-Y3-	ARCHITECTURAL A, PROS-Y3-3030 PROVIDENCE: DIE-CAST ALUMINUM <i>LAMPS: (1) NICHA 219C, 3152 LUMENS</i> <i>BLST: OT50W/UNV/1250C, WATTS= 44</i>
PS4	18	PROS-Y4-	ARCHITECTURAL A, PROS-Y4-3030 PROVIDENCE: DIE-CAST ALUMINUM GLASS LENS, <i>LAMPS: (1) NICHA 219C, 3134 LUMENS</i> <i>BLST: OT50W/UNV/1250C, WATTS= 43</i>
PS5	40	PROS-Y5-	ARCHITECTURAL A, PROS-Y5-3030 PROVIDENCE: DIE-CAST ALUMINUM <i>LAMPS: (1) NICHA 219C, 2886 LUMENS</i> <i>BLST: OT50W/UNV/1250C, WATTS= 43</i>

Assemblies Used

ASSY	QTY	DESCRIPTION	TYPE	MHT	ORI	TILT	ROLL	BRKLEN	BRKROT
G2	3	Type 2 12 Flush	PS2	14.00	0	0	0	0.00	0
G3	4	Type 3 12 Flush	PS3	14.00	0	0	0	0.00	0
G5	40	Type 5 12 Flush	PS5	14.00	0	0	0	0.00	0
PK2	2	Type 2 18 Flush	PM27	20.00	0	0	0	0.00	0
PK3	61	Type 3 18 Flush	PM37	20.00	0	0	0	0.00	0
PK3D	17	Type 3 18 Flush	PM37	20.00	0	0	0	2.00	0
			PM37	20.00	180	0	0	2.00	180
PK4	5	Type 4 18 Flush	PM47	20.00	0	0	0	0.00	0
PK5	3	Type 5 18 Flush	PM57	20.00	0	0	0	0.00	0
W2	17	Type 2 Wall	PS2	12.00	0	0	0	1.67	0

Assemblies Used**(continued)**

ASSY	QTY	DESCRIPTION	TYPE	MHT	ORI	TILT	ROLL	BRKLEN	BRKROT
W3	1	Type 3 Wall	PS3	12.00	0	0	0	1.67	0
W4	18	Type 4 Wall	PS4	12.00	0	0	0	1.67	0

Project Area Summary

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Project Name Colgate Divinity School Campus - Redevel
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Group Name <All Groups>
Power Density 0.00 Watts/Sq. Ft

Project Area Summary

AREA NAME	I/O	DIMENSIONS	LUMS/ASMS	WATTS/SQ FT	QTY
Site	OUT	1473.25x1078.50Ft	<i>G2 (Asm)</i> (3) <i>G3 (Asm)</i> (4) <i>G5 (Asm)</i> (24) <i>PK2 (Asm)</i> (2) <i>PK3 (Asm)</i> (15) <i>PK3D (Asm)</i> (3) <i>W2 (Asm)</i> (1) <i>W4 (Asm)</i> (6)	0.00	1
Site	OUT	1370.88x722.63Ft	<i>G5 (Asm)</i> (6) <i>PK3 (Asm)</i> (20) <i>PK3D (Asm)</i> (7) <i>PK4 (Asm)</i> (5) <i>PK5 (Asm)</i> (2) <i>W2 (Asm)</i> (10) <i>W4 (Asm)</i> (6)	0.01	1
Site	OUT	1306.88x792.38Ft	<i>G5 (Asm)</i> (10) <i>PK3 (Asm)</i> (26) <i>PK3D (Asm)</i> (7) <i>PK5 (Asm)</i> (1) <i>W2 (Asm)</i> (6) <i>W3 (Asm)</i> (1) <i>W4 (Asm)</i> (6)	0.00	1

Prepared By:
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Project Calculation Summary

Date Jul 25, 2019
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Group Name <All Groups>
Power Density 0.00 Watts/Sq. Ft

Project Calc Summary

AREA NAME	I/O	DIMENSIONS	GRID / TYPE / GROUP	# PTS	SPAC	AVE	MAX	MIN	Mx/Mn	Av/Mn
Site	OUT	1473.25x1078.50Ft	5 ft / H-H / <+>	47443	5.00	0.17	4.58	0.00	-1.00	-1.00
Site	OUT	1370.88x722.63Ft	5 ft / H-H / <+>	29822	5.00	0.32	4.62	0.00	N/A	N/A
Site	OUT	1306.88x792.38Ft	5 ft / H-H / <+>	32234	5.00	0.30	4.56	0.00	N/A	N/A

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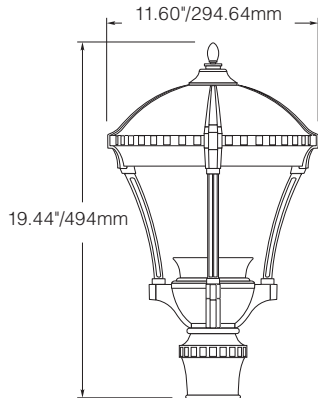
LitePro

FEATURES

- Reliable uniform illumination
- Types II, III, IV and V distributions
- 3000K, 4000K, 5000K CCT
- 0-10V dimmable
- Integral surge suppression
- Thermal Protection
- 13 standard powder coat finishes
- Die-Cast housing
- Full Cutoff optical system

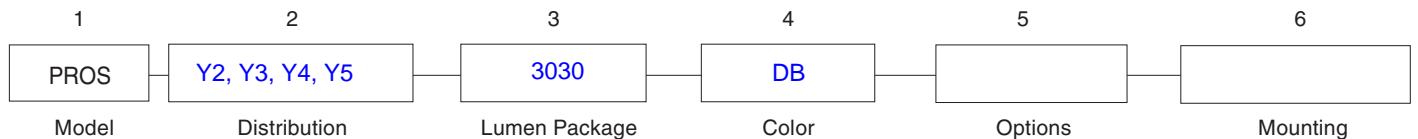


SPECIFICATIONS



- Diameter: 11.60" / 294.64 mm
- Height: 19.44" / 494 mm
- Weight: 9 lbs / 4kg
- EPA: .46
- IP Rating: 66

ORDERING INFORMATION



1. MODEL

PROS *Providence Small LED*

2. DISTRIBUTION

Y2	Type 2
Y3	Type 3
Y4	Type 4
Y5	Type 5

3. LUMEN PACKAGE

3050	5000K CCT, 43 watts
3040	4000K CCT, 43 watts
3030	3000K CCT, 43 watts
2050	5000K CCT, 25 watts
2040	4000K CCT, 25 watts
2030	3000K CCT, 25 watts

4. COLOR

WH	Arctic White
BL	Black
BLT	Matte Black
DB	Dark Bronze
DGN	Dark Green
TT	Titanium
WDB	Weathered Bronze
MDB	Bronze Metallic
VBU	Verde Blue
CRT	Corten
MAL	Matte Aluminum
MG	Medium Grey
AGN	Antique Green
LG	Light Grey
RAL	Premium Color
CUSTOM	** Contact Factory

5. OPTIONS

FS1	Fusing
PFN	Brass Painted Finial
SPK	Brass Painted Spike
BPS	Brass Painted Struts
LDL	Lightly diffused lens
AD4	Adapter used only with standard AAL arms and post top mount fixtures to slip over a 4"/100mm O.D. pole

6. MOUNTING

Standard mount shall slip over a 3"/75mm pole or may choose one.

WALL MOUNT

WMA59D	Mount down
WMA59U	Mount up

POLE MOUNT

Side mounts

TRA59D	Mount down
TRA59U	Mount up

LUMINAIRE PERFORMANCE

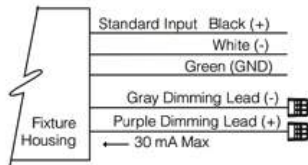
Light Engine	Lensing	Distribution	Ordering Code												Average System Watts				
			Ordering Code	5000K CCT				4000K CCT				3000K CCT							
				Delivered Lumens	Efficacy (Lm/W)	BUG Rating			Delivered Lumens	Efficacy (Lm/W)	BUG Rating			Delivered Lumens		Efficacy (Lm/W)	BUG Rating		
			3050				3040				3030								
3000 Series	Clear Lens (Standard)	TYPE 2	Y2	3238	75	1	0	1	3247	76	1	0	1	2975	69	1	0	1	43
		TYPE 3	Y3	3261	75	1	0	1	3270	76	1	0	1	3038	70	1	1	1	
		TYPE 4	Y4	3253	75	1	0	1	3262	76	1	0	1	2988	69	1	0	1	
		TYPE 5	Y5	3148	73	2	0	1	3157	73	2	0	1	2892	67	2	0	1	
	Lightly Diffused Lens	TYPE 2	Y2...LDL	2386	56	1	1	1	2342	54	1	1	1	2092	49	1	1	1	
		TYPE 3	Y3...LDL	2385	57	1	1	1	2341	56	1	1	1	2091	50	1	1	1	
		TYPE 4	Y4...LDL	2295	53	1	2	1	2252	52	1	2	1	2012	47	1	2	1	
			2050				2040				2030								
2000 Series	Clear Lens (Standard)	TYPE 2	Y2	1951	78	1	0	1	1957	78	1	0	1	1792	71	1	0	1	25
		TYPE 3	Y3	1958	78	1	0	1	1970	78	1	0	1	1830	73	1	0	1	
		TYPE 4	Y4	1960	78	1	0	1	1957	78	1	0	1	1793	71	1	0	1	
		TYPE 5	Y5	1889	76	1	0	1	1894	76	1	0	1	1735	69	1	0	1	
	Lightly Diffused Lens	TYPE 2	Y2...LDL	1387	56	1	1	1	1361	54	1	1	1	1216	49	1	1	1	
		TYPE 3	Y3...LDL	1386	57	1	1	1	1361	56	1	1	1	1216	50	1	1	1	
		TYPE 4	Y4...LDL	1334	53	1	2	1	1309	52	1	2	1	1170	47	1	2	1	
			2050				2040				2030								
			2050				2040				2030								
			2050				2040				2030								

ELECTRICAL CHARACTERISTICS

Configuration	Driver										Inrush Current				Dimming	
	LED Drive mA	System Watts	Line Voltage		Amps AC		Min. Power Factor	Max THD (%)	Operating Temp. Range	120V		277V		Dimming Range	Source/Sink Current	
			VAC	HZ	120	277				Ipeak (A)	Ipeak (A)					
3050	3000 series	400	42	120-277	50/60	0.35	0.15	≥9	20	-40°C To +55°C	21	160 μS	49	160 μS	10% TO 100%	1mA
3040																
3020																
2050	2000 series	255	25	120-277	50/60	0.21	0.09	≥9	20	-40°C To +55°C	21	160 μS	49	160 μS	10% TO 100%	1mA
2040																
2020																

WIRING LEADS

Luminaires shall be provided with 0-10 purple and gray dimming leads.



LED COLOR

	Ordering Code		
	3K	4K	5K
CCT Average	3000K	4000K	5000K
CRI Minimum	70	70	70
S/P Ratio	1.2	1.5	1.8

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

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	100%	99%	99%	98%	97%	>96Khrs
		25	99%	99%	98%	97%		
		40	98%	97%	94%	93%	89%	



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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

- LEDs shall be mounted to a metal printed circuit board assembly (MCPCB) with a uniform conformal coating over the panel surface and electrical features.
- LED optics shall be clear injection molded PMMA acrylic.
- MCPCB 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.

SERVICING

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

MOUNTING

- One-piece cast aluminum arms accept the standard 3" slip fitter on the Providence fixture.
- 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.

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 / TERMS AND CONDITIONS OF SALE

Download: <http://www.hubbelling.com/resources/warranty/>



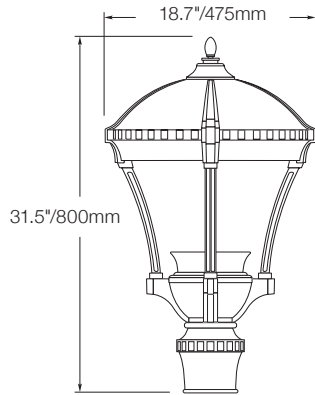
JOB	_____
TYPE	_____
NOTES	_____

FEATURES

- Reliable, uniform, glare free illumination
- Types II, III, IV, V and custom distributions⁴
- 3000K, 4000K, 5000K CCT
- 0-10V dimming ready
- Integral surge suppression
- LifeShield™ thermal protection
- 14 standard powder coat finishes



SPECIFICATIONS

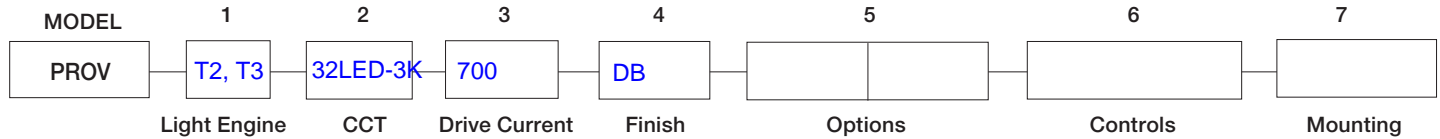


- Diameter: 18.7" / 475 mm
- Height: 31.5" / 800 mm
- Weight: 29 lbs
- EPA: 0.96
- IP Rating: 65



3000K and warmer CCTs only

ORDERING INFORMATION



1. LIGHT ENGINE

- T2 Type II
- T3 Type III
- T4 Type IV
- T5 Type V

2. COLOR TEMPERATURE

- 32LED -3K 3000K CCT, 70CRI
- 32LED -4K 4000K CCT, 70CRI
- 32LED -5K 5000K CCT, 70CRI

Additional CCT's and 560nm monochromatic amber available by request⁴

3. DRIVE CURRENT

- 700 700mA, 75 watts
- 450 450mA, 48 watts

4. FINISH

Standard Color

- AGN Antique Green
- BL Black
- BLT Matte Black
- CRT Corten
- DB Dark Bronze
- DGN Dark Green
- LG Light Grey
- MAL Matte Aluminum
- MDB Bronze Metallic
- MG Medium Grey
- TT Titanium
- VBU Verde Blue
- WDB Weathered Bronze
- WH Arctic White

4. FINISH (CONT)

Premium Color

- SFM Seafoam
- SHK Shamrock
- SPP Salt and Pepper
- WCP Weathered Copper
- RAL RAL 4 digit Color
- CUSTOM Custom Color

5. OPTIONS (may choose as noted)

Fuse may choose one

- SF 120 or 277 Line Volts
- DF 208 or 240 Line Volts

Finish

- SPK Decorative spike
- BPS Struts painted brass
- PFN Finial painted brass

Optics may choose one

- LDL Lightly diffused lens
- CLR Clear flat lens
- HSS House Side shield for Type 4

Accessories may choose one

- EPA-C Egress-Contemporary³
- EPA-T Egress-Traditional³

Mounting may choose one

- PT23 Slips Over a 2 3/8" x 4" Tenon
- PT3 Slips Over a 3" x 4" Tenon

6. CONTROL

- PCA-C Rotatable photocell-Contemporary
- PCA-T Rotatable photocell-Traditional
- SCP Sensor Control Programmable, pole accessory ordered separately^{1 2}

7. MOUNTING

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

Wall Mount Arm

- WMA7 WMA57 WMA35U
- WMA55 WMA9U WMA36U
- WMA56 WMA22U

Pole Mount Arm

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

Pier Mount

- PM1 PM2 PM3

Option

- AD5

NOTE:

¹ Pole accessory with motion sensor and daylight photo-control for California Title 24 section 130.2 compliance. For complete spec sheet and ordering information, visit www.aal.net/products/sensor_control_programmable/

² Handheld commissioning tool is required to separately configure or adjust any number of SCP sensors

³ Not compatible with PCA-C nor PCA-T

⁴ Consult factory



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JOB _____
 TYPE _____
 NOTES _____

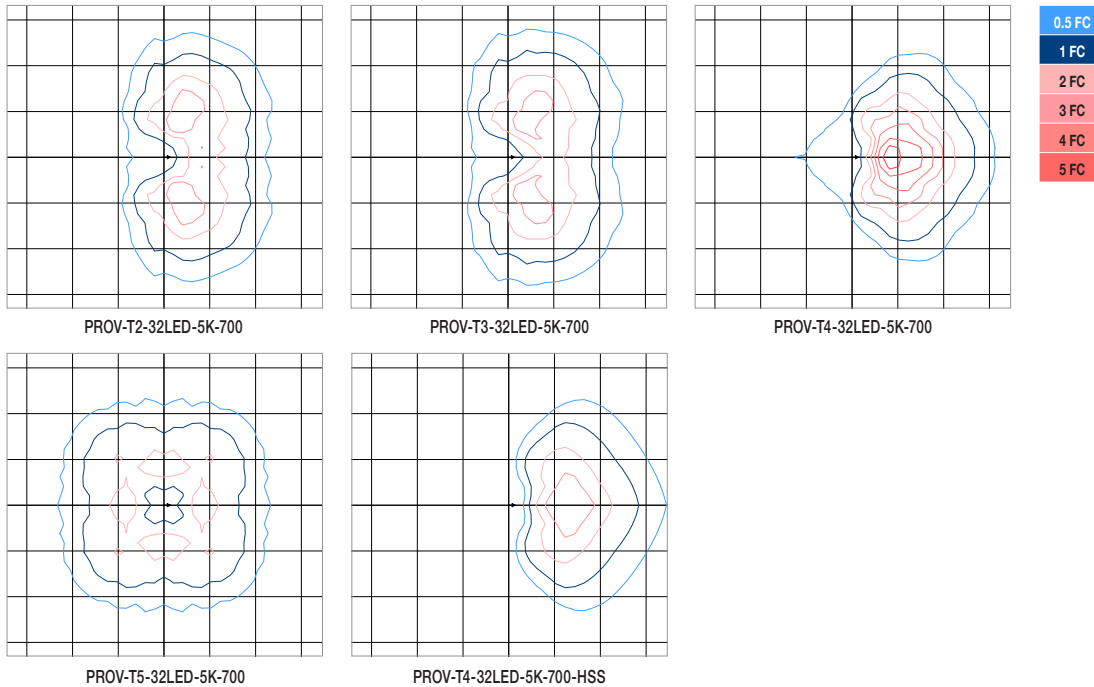
LUMINAIRE PERFORMANCE

Configuration			Ordering Code	32LED-5K-700			32LED-4K-700			32LED-3K-700								
System Watts	Secondary Lens or Shield	Distribution		Delivered Lumens	Efficacy (Lm/W)	BUG Rating			Delivered Lumens	Efficacy (Lm/W)	BUG Rating							
						B	U	G			B	U	G			B	U	G
73	No Lens (Standard)	TYPE II	T2	5688	77	2	0	2	5470	74	1	0	2	5290	71	1	0	2
		TYPE III	T3	6166	83	2	0	2	5929	80	2	0	2	5735	77	2	0	2
		TYPE IV	T4	5616	76	1	0	2	5400	73	1	0	2	5223	71	1	0	2
		TYPE V	T5	6208	84	3	0	1	5969	81	3	0	1	5773	78	3	0	1
	House Side Shield	TYPE IV	T4...HSS	4418	60	0	0	2	4322	58	0	0	2	4134	56	0	0	2
				32LED-5K-450			32LED-4K-450			32LED-3K-450								
47	No Lens (Standard)	TYPE II	T2	3491	74	1	0	1	3357	71	1	0	1	3247	69	1	0	1
		TYPE III	T3	3785	81	1	0	1	3639	77	1	0	1	3520	75	1	0	1
		TYPE IV	T4	3447	73	0	0	1	3314	71	0	0	1	3205	68	0	0	1
		TYPE V	T5	3618	77	2	0	1	3479	74	2	0	1	3365	72	2	0	1
	House Side Shield	TYPE IV	T4...HSS	2728	58	0	0	2	2766	59	0	0	2	2652	56	0	0	2

ELECTRICAL CHARACTERISTICS

Ordering Code		Line Input		Amps AC	LED Drive (mA)	System Watts (w)	Min. Power Factor	Max THD (%)	Driver Operating Temp. Range (°C)	Inrush Current	Dimming	
MODEL	LUMEN PACKAGE	VAC	Hz								Dimming Range(V)	Source / Sink Current (mA)
PROV	700	120	50/60	0.6	700	73	≥.9	20	-30° TO +40°	<20.0 AMPS MAX @ 230 VAC	0 - 10	0
		208		0.3								
		240		0.2								
		277		0.2								
	450	120		0.4	450	47	≥.9	20	-30° TO +40°	<20.0 AMPS MAX @ 230 VAC	0 - 10	0
		208		0.1								
		240		0.1								
		277		0.1								

ISOLINE TEMPLATES 14' Mounting Height

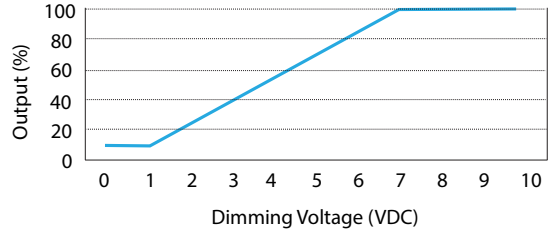


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JOB _____
 TYPE _____
 NOTES _____

TM-21 LIFETIME CALCULATION

Ambient Environment °C	Projected Lumen Maintenance (% vs. Khrs)					Reported L70
	15	25	50	TM-21* 60	100	
25	93	91	87	85	78	>60Khrs
40	93	91	87	85	78	



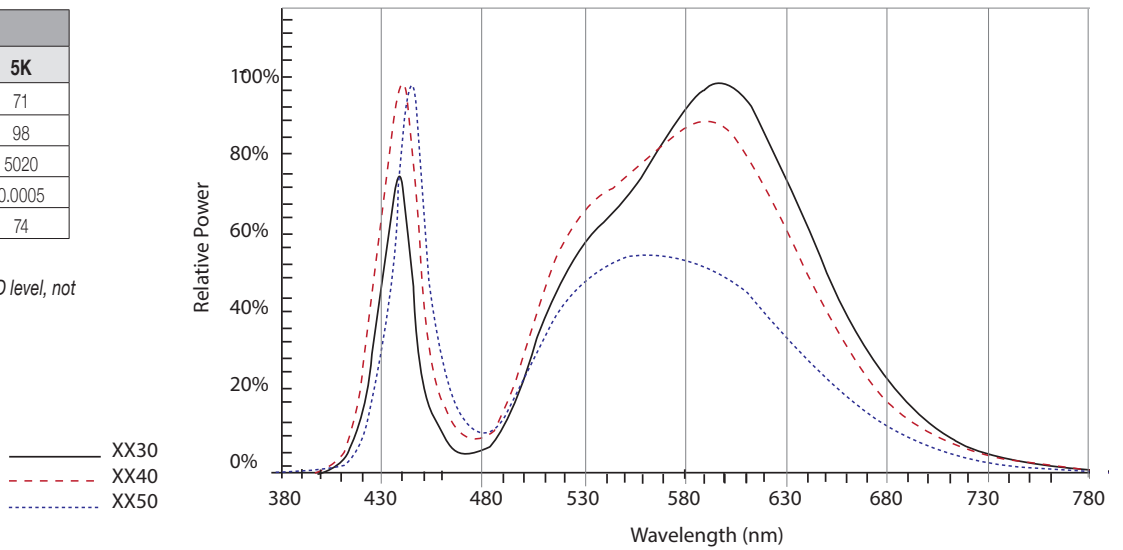
Note: Fixture does not dim to off, fixture dims to 10% minimum

COLOR CHARACTERISTICS

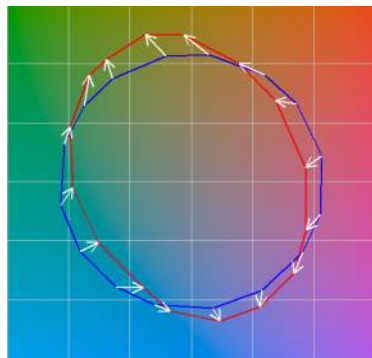
Value	Ordering Code		
	3K	4K	5K
Rf	69	69	71
Rg	99	99	98
CCT(K)	3122	3852	5020
Duv	0.001	0.0004	0.0005
CIE Ra	74	73	74

Note: TM-30 reported at the discrete LED level, not fixture level.

SPECTRAL POWER DISTRIBUTION COMPARISON

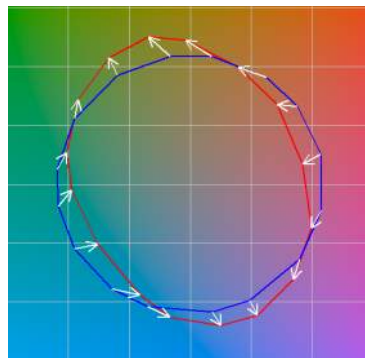


COLOR VECTOR GRAPHIC



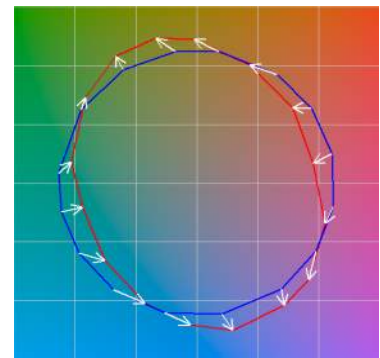
XX30

— Reference Illuminant — Test Source — Series1 — Series2 — Series3 — Series4 — Series5 — Series6 — Series7 — Series8 — Series9 — Series10



XX40

— Reference Illuminant — Test Source — Series1 — Series2 — Series3 — Series4 — Series5 — Series6 — Series7 — Series8 — Series9 — Series10



XX50

— Reference Illuminant — Test Source — Series1 — Series2 — Series3 — Series4 — Series5 — Series6 — Series7 — Series8 — Series9 — Series10

SPECIFICATIONS

HOUSING

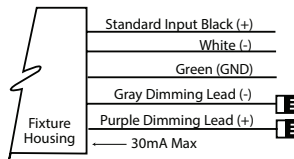
- Luminaire shall have discrete optical and gear compartments that do not share any physical housings.
- All housing components shall be die-cast aluminum, sealed with continuous silicone rubber gaskets.
- Standard configurations do not require a flat lens, optional lenses shall be tempered glass
- All 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.
- Type 4 distribution with optional House Side Shield not available with clear or diffused glass lenses. Factory installed House Side Shield is optimized for Type 4 distribution and not recommended for use with Type 2 or 3 distribution and not available with type 5 distribution.

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

- SCP shall have an integral surge protection device with a current rating of 10,000 Amps using the industry standard 8/20uSec wave and sure rating of 372J
- Sensor not intended for use with additional photo-control, wireless control or dimming systems.

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 / TERMS AND CONDITIONS OF SALE

Download: <http://www.hubbellighting.com/resources/warranty/>

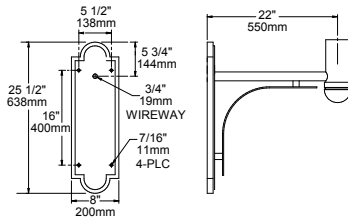


JOB	_____
TYPE	_____
NOTES	_____

WALL MOUNT

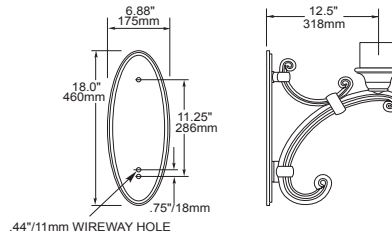
WMA7

WT: 16 LBS



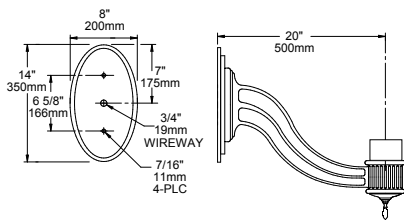
WMA57

WT: 9 LBS



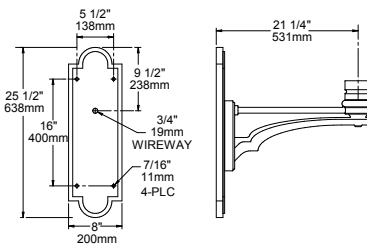
WMA35U

WT: 12 LBS



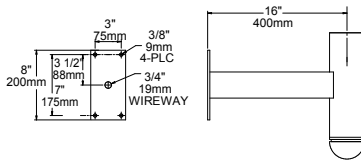
WMA55

WT: 10 LBS



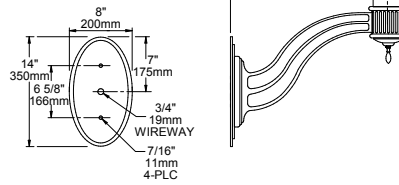
WMA9U

WT: 8 LBS



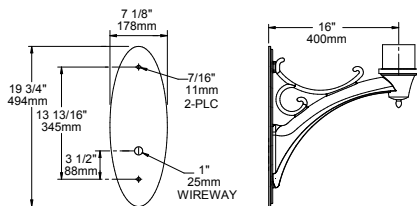
WMA36U

WT: 12 LBS



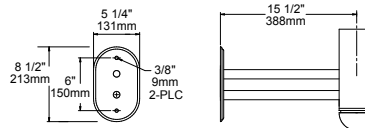
WMA56

WT: 10 LBS



WMA22U

WT: 5 LBS

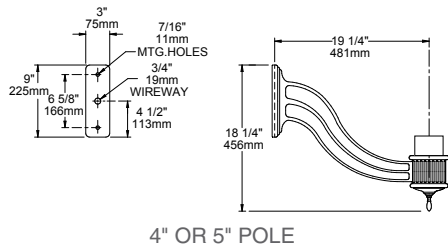


POLE MOUNT

TRA5U

WT: 9 LBS

EPA: .62

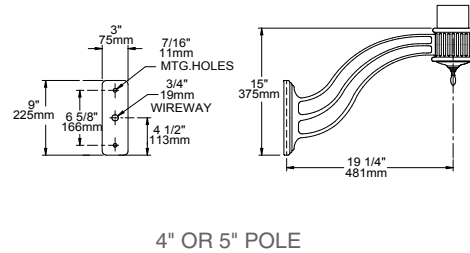


4" OR 5" POLE

TRA6U

WT: 9 LBS

EPA: .62

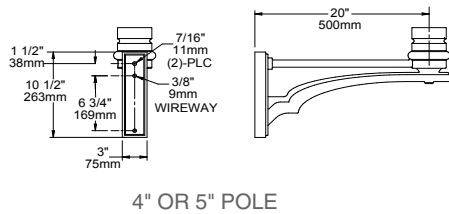


4" OR 5" POLE

TRA55

WT: 10 LBS

EPA: .67

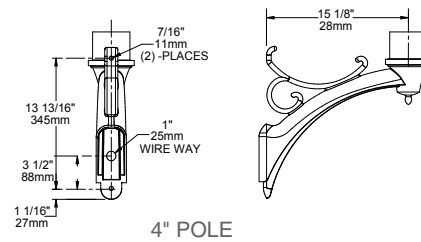


4" OR 5" POLE

TRA56

WT: 8 LBS

EPA: .54

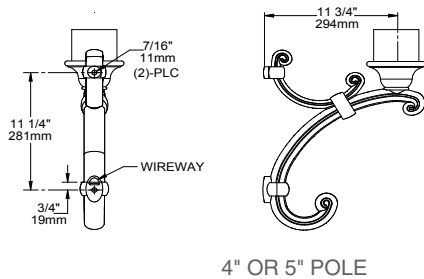


4" POLE

TRA57

WT: 7 LBS

EPA: .67

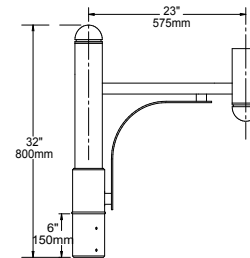


4" OR 5" POLE

SLA1

WT: 12 LBS

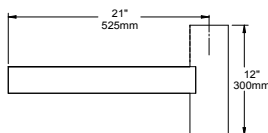
EPA: 1.09



SLA8U

WT: 5 LBS

EPA: .40

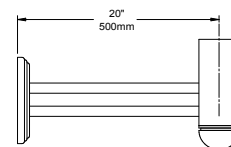


4" OR 5" POLE

SLA22U

WT: 6 LBS

EPA: .60

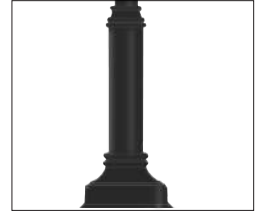


4" OR 5" POLE

DB6 – Decorative Pole

TYPE G2, G3, G5

4" ROUND (RD) & FLUTED (FL) DECORATIVE BASE



DB6

1. BASE	2. POLE	3. OAH	4. COLOR	5. OPTIONS/ACCESSORIES																

1. BASE	2. POLE	3. OAH	SHAFT	WT	MAXIMUM ALLOWABLE EPA (MPH)																
					85	90	100	110	120	130	140	150									
DB6	4R10-125	10' (3.1m)	4" RD x .125"	50	19.4	17.1	13.5	10.8	8.9	7.4	6.3	5.5									
DB6	4R12-125	12' (3.7m)	4" RD x .125"	54	15.3	13.4	10.5	8.3	6.7	5.6	4.7	4.0									
DB6	4R14-125	14' (4.3m)	4" RD x .125"	57	12.3	10.7	8.2	6.3	5.0	4.1	3.4	2.9									
DB6	4R16-125	16' (4.9m)	4" RD x .125"	61	10.0	8.6	6.4	4.8	3.6	2.9	2.4	2.0									
DB6	4F10-188	10' (3.1m)	4" FL x .188"	56	22.1	19.5	15.4	12.4	10.2	8.5	7.1	6.1									
DB6	4F12-188	12' (3.7m)	4" FL x .188"	62	17.6	15.4	12.1	9.6	7.7	6.4	5.3	4.4									
DB6	4F14-188	14' (4.3m)	4" FL x .188"	67	14.3	12.5	9.6	7.5	5.9	4.8	3.9	3.2									
DB6	4F16-188	16' (4.9m)	4" FL x .188"	72	11.7	10.1	7.6	5.8	4.4	3.5	2.7	2.2									
DB6	4R10-226	10' (3.1m)	4" RD x .226"	60	23.8	21.0	16.7	13.5	11.1	9.3	8.0	6.9									
DB6	4R12-226	12' (3.7m)	4" RD x .226"	66	19.2	16.9	13.3	10.6	8.6	7.2	6.1	5.3									
DB6	4R14-226	14' (4.3m)	4" RD x .226"	73	15.9	13.9	10.8	8.4	6.8	5.6	4.7	4.0									
DB6	4R16-226	16' (4.9m)	4" RD x .226"	79	12.4	12.3	9.4	7.3	5.7	4.7	4.0	3.3									

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.

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".

CERTIFICATION

Certified UL 1598 in accordance with Article 410 of ANSI/NFPA 70, National Electrical Code.

2. COLOR

WH Arctic White	VBU Verde Blue
BL Black	CRT Corten
BLT Matte Black	MAL Matte Aluminum
DB Dark Bronze	MG Medium Grey
DGN Dark Green	AGN Antique Green
TT Titanium	LG Light Grey
WDB Weathered Bronze	RAL Premium Color
MDB Bronze Metallic	CUSTOM ** Contact Factory

3. OPTIONS / ACCESSORIES

FH (Flag holder. Specify location on pole)

FS1 (Single weatherproof fuse holder. Fuse by others.)

FS2 (Double weatherproof fuse holder. Fuse by others.)

LR (Ladder rest. Slips over a 4" O.D. pole.)

PCA-T (Rotatable photocell housing. The housing slips over a 4"/100mm O.D. pole. A fixture slips over the 4"/100mm O.D. tenon. Includes an internal twist lock receptacle, and an access cover with integral lens and stainless steel tether. Adds 5"/125mm to the overall height of the pole/fixture assembly. Prewired on the load side and line side for easy installation. Photocell by others.)

PCR (Low profile twist lock photocell receptacle with cast pole cap top. Secures to the top of the pole with three stainless steel set screws. Photocell by others.)

PLT (Plant Hanger. For 4" O.D. poles. (specify location on pole)

RBC (Cast aluminum receptacle housing, integrally welded to the pole. Includes a NEC approved clear weatherproof cover. Does not include a receptacle or internal wiring.)

JOB _____
 TYPE _____
 NOTES _____

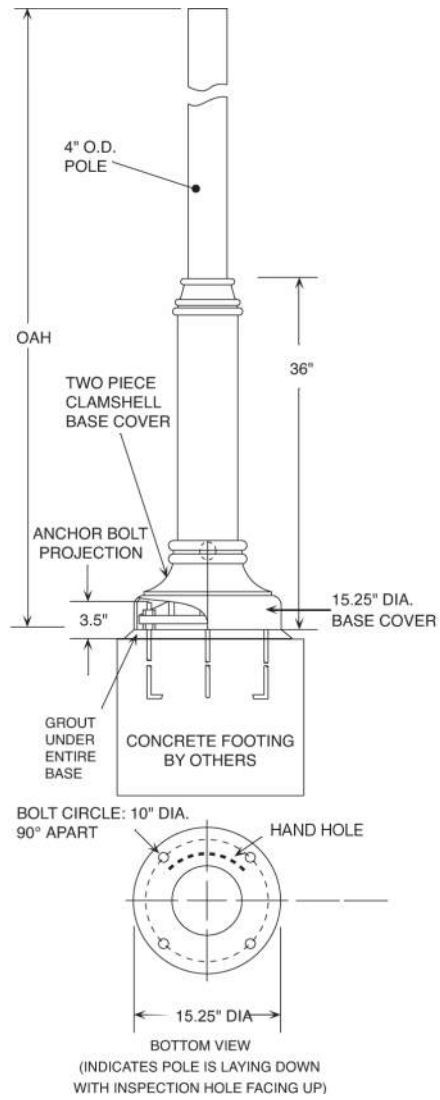


DB6 – Decorative Pole

TYPE

4" ROUND (RD) & FLUTED (FL) DECORATIVE BASE

DIMENSIONS



DB10 – Decorative Pole

TYPE PK2, PK3, PK3D

5" ROUND (RD) & FLUTED (FL) DECORATIVE BASE



DB10

1. BASE	2. POLE	3. OAH	4. COLOR	5. OPTIONS/ACCESSORIES				

1. BASE	2. POLE	3. OAH	SHAFT	WT	MAXIMUM ALLOWABLE EPA (MPH)													
					85	90	100	110	120	130	140	150						
DB10	5R14-188	14' (4.3m)	5" RD x .188"	89	32.3	28.5	22.7	18.6	15.5	13.1	11.2	9.6						
DB10	5R16-188	16' (4.9m)	5" RD x .188"	95	27.3	23.9	19.0	15.5	12.8	10.8	9.2	7.9						
DB10	5R18-188	18' (5.5m)	5" RD x .188"	102	22.8	19.8	15.6	12.7	10.5	8.8	7.4	6.4						
DB10	5R20-188	20' (6.2m)	5" RD x .188"	109	18.9	16.4	12.8	10.3	8.5	7.0	5.9	5.0						
DB10	5R22-188	22' (6.8m)	5" RD x .188"	116	15.8	13.5	10.4	8.3	6.8	5.6	4.7	3.9						
DB10	5R24-188	24' (7.4m)	5" RD x .188"	123	13.1	11.1	8.4	6.6	5.3	4.3	3.6	3.0						
DB10	5R25-188	25' (7.7m)	5" RD x .188"	127	11.9	10.0	7.5	5.9	4.7	3.8	3.1	2.5						
DB10	5F14-188	14' (4.3m)	5" FL x .188"	89	21.4	18.7	14.8	12.1	10.0	8.2	6.9	5.8						
DB10	5F16-188	16' (4.9m)	5" FL x .188"	95	17.8	15.5	12.1	9.8	8.0	6.6	5.4	4.5						
DB10	5F18-188	18' (5.5m)	5" FL x .188"	102	14.5	12.5	9.7	7.8	6.3	5.1	4.1	3.3						
DB10	5F20-188	20' (6.2m)	5" FL x .188"	109	11.8	10.0	7.6	6.1	4.8	3.7	3.0	2.3						
DB10	5F22-188	22' (6.8m)	5" FL x .188"	116	9.4	7.9	5.8	4.6	3.9	2.6	2.0	1.4						
DB10	5F24-188	24' (7.4m)	5" FL x .188"	123	7.4	6.1	4.3	3.3	2.4	1.7	1.1	0.6						
DB10	5F25-188	25' (7.7m)	5" FL x .188"	127	6.6	5.2	3.6	2.7	1.9	1.2	0.7	0.3						
DB10	5R14-250	14' (4.3m)	5" RD x .250"	101	35.7	31.5	25.2	20.6	17.2	14.5	12.4	10.7						
DB10	5R16-250	16' (4.9m)	5" RD x .250"	110	30.5	26.8	21.3	17.4	14.5	12.2	10.4	9.0						
DB10	5R18-250	18' (5.5m)	5" RD x .250"	119	25.8	22.5	17.8	14.5	12.0	10.1	8.6	7.3						
DB10	5R20-250	20' (6.2m)	5" RD x .250"	127	21.8	18.9	14.8	12.0	9.9	8.3	7.0	6.0						
DB10	5R22-250	22' (6.8m)	5" RD x .250"	135	18.5	15.9	12.4	9.9	8.1	6.7	5.7	4.8						
DB10	5R24-250	24' (7.4m)	5" RD x .250"	143	15.7	13.4	10.3	8.2	6.6	5.5	4.5	3.8						
DB10	5R25-250	25' (7.7m)	5" RD x .250"	145	14.5	12.3	9.3	7.4	6.0	4.9	4.0	3.4						

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.

Anchor bolts shall be hot dip galvanized steel. Eight galvanized hex nuts and flat washers, and a bolt circle template shall be provided. Anchor bolts for poles 14 feet high or less are 3/4" x 24" x 3". Anchor bolt for poles more than 14 feet high are 1"x 36" x 4".

CERTIFICATION

Certified UL 1598 in accordance with Article 410 of ANSI/NFPA 70, National Electrical Code.

2. COLOR

Standard Color

WH	Arctic White
BL	Black
BLT	Matte Black
DB	Dark Bronze
DGN	Dark Green
TT	Titanium
WDB	Weathered Bronze
MDB	Bronze Metallic
VBU	Verde Blue
CRT	Corten
MAL	Matte Aluminum
MG	Medium Grey
AGN	Antique Green
LG	Light Grey

Premium Color

SHK	Shamrock
SPP	Salt and Pepper
SFM	Seafoam
WCP	Weathered Copper
RAL	RAL 4 digit Color
CUSTOM	Custom Color

3. OPTIONS / ACCESSORIES

AD5 (This adapter is to be used only with standard AAL arms and post top mount fixtures that slip over a 4" O.D. pole. The AD5 is a cast aluminum adapter that slips into the arm or over a 5"/125mm O.D. pole.)

FH (Flag holder. Specify location on pole)

FS1 (Single weatherproof fuse holder. Fuse by others.)

FS2 (Double weatherproof fuse holder. Fuse by others.)

PCR (Low profile twist lock photocell receptacle with cast pole cap top. Secures to the top of the pole with three stainless steel set screws. Photocell by others.)

RBC (Cast aluminum receptacle housing, integrally welded to the pole. Includes a NEC approved clear weatherproof cover. Does not include a receptacle or internal wiring.)

JOB _____

TYPE _____

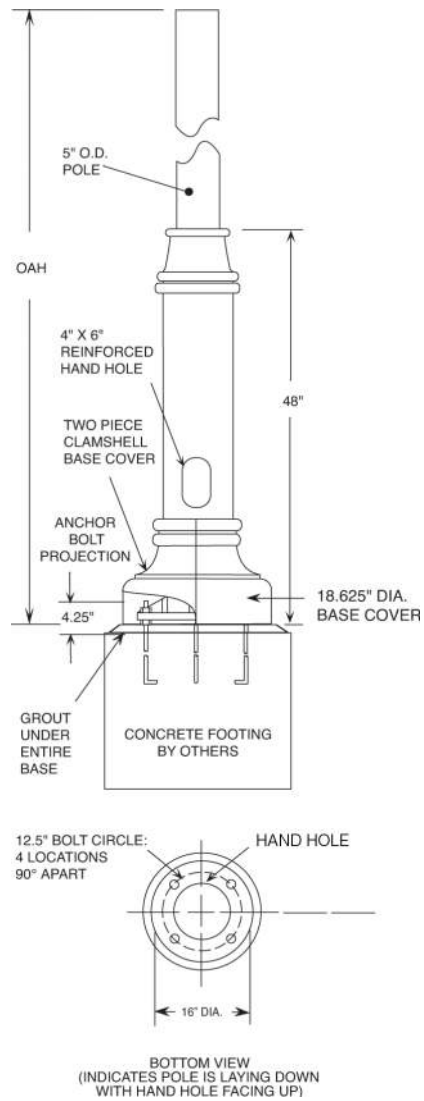
NOTES _____



ARCHITECTURAL AREA LIGHTING
 16555 East Gale Ave. | City of Industry | CA 91745
 P 626.968.5666 | F 626.369.2695 | www.aal.net
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5" ROUND (RD) & FLUTED (FL) DECORATIVE BASE

DIMENSIONS



Colgate Divinity School Campus - Redevel 6702_Site - View from (648, -636, 551), Heading = 353 deg., Elevation = -24 deg.

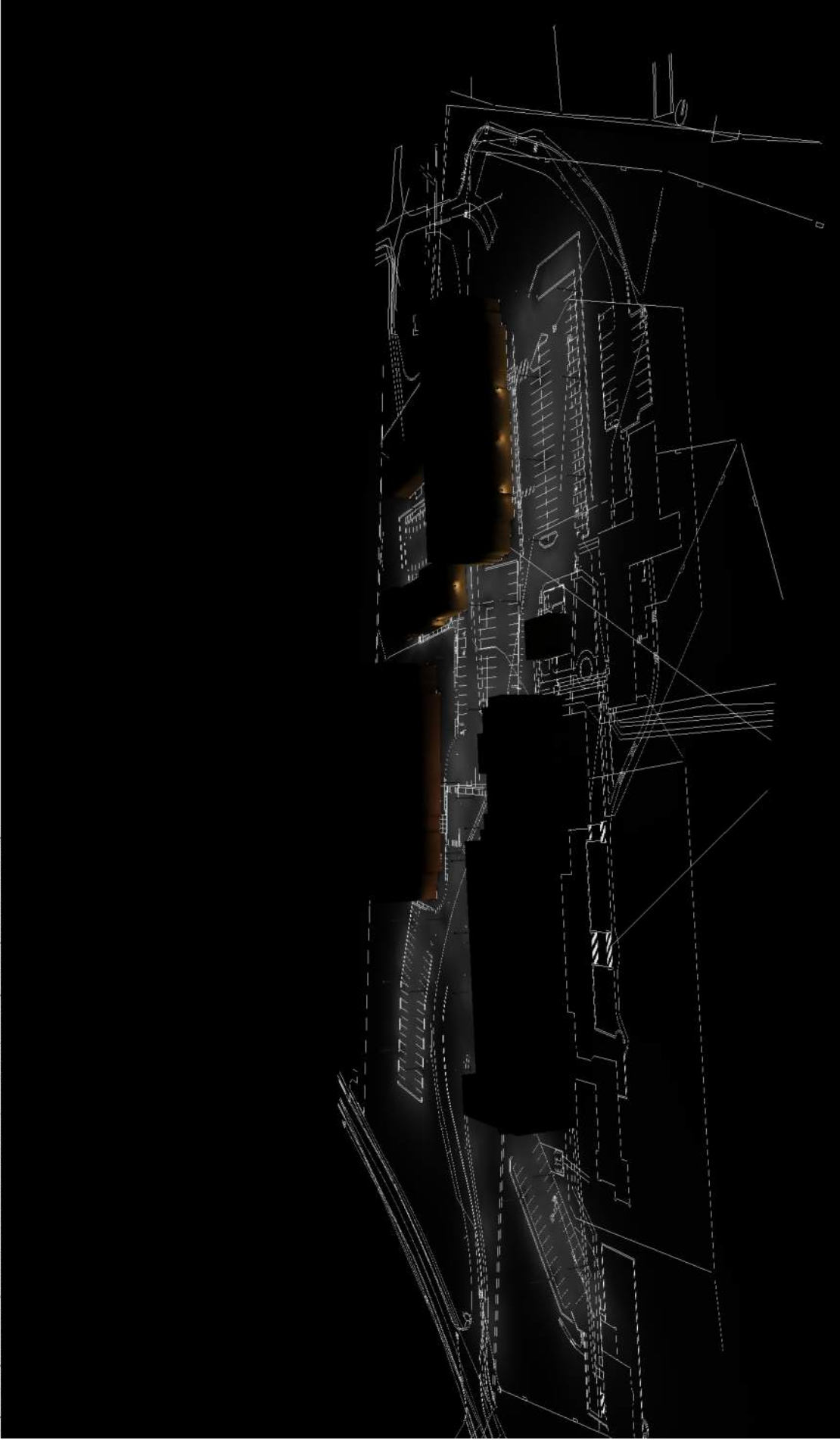


Image rendered by LisePro Version 2.080

Colgate Divinity School Campus - Redevel 6702, Site View from (890, -463, 788), Heading = 345 deg., Elevation = -38 deg.

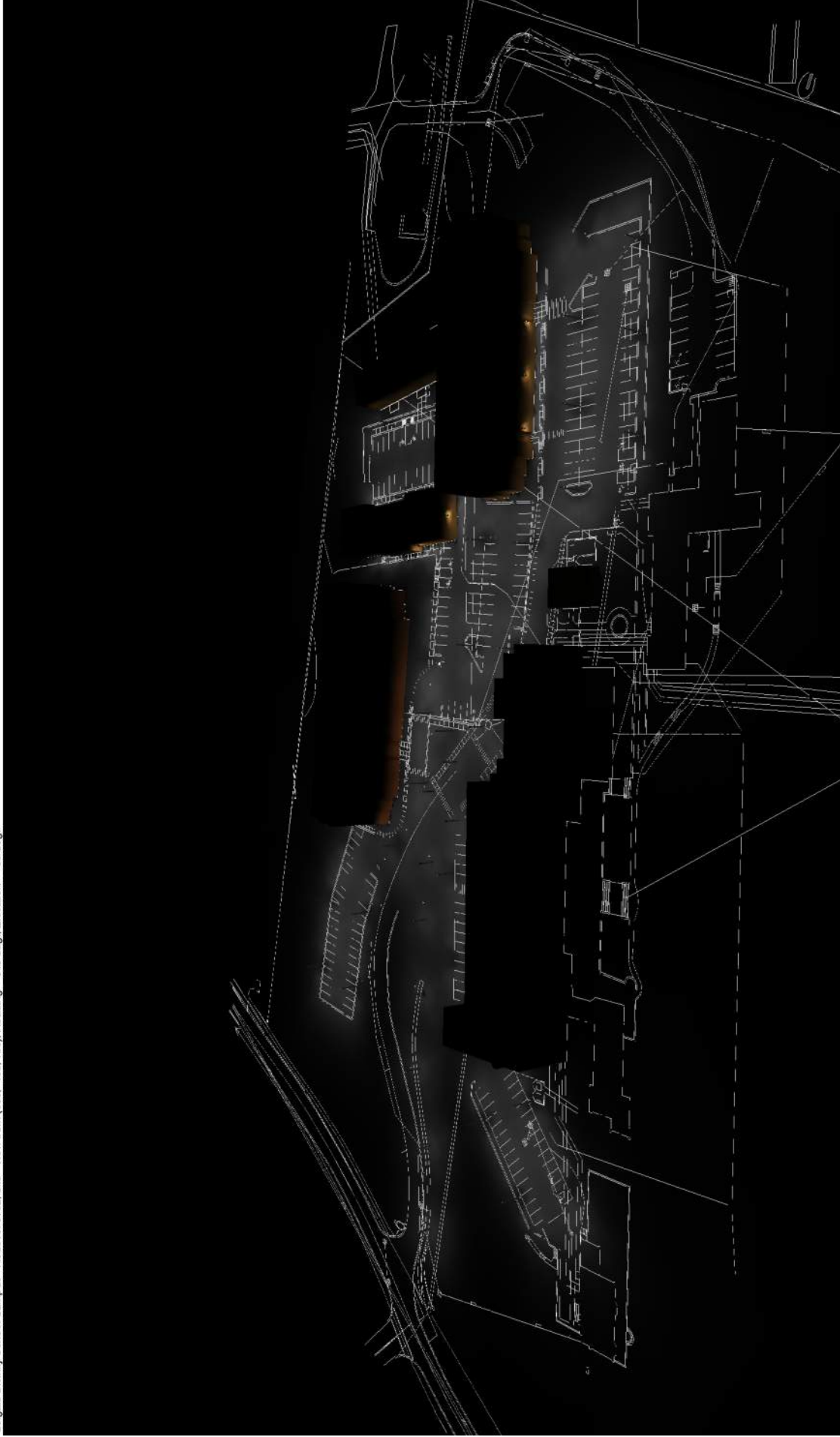


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