

FEATURES

- IDA Dark Sky Compliant, No Up-light configuration
- Elegant form factor blended with Performance Optics
- Integral NEMA 3R Enclosure
- Dual receptacle power panel
- PA System capability
- Bluetooth enabled RGBW accent



NU configurations in 3000K and warmer CCTs only

CONTROL TECHNOLOGY



Pavilion™



RELATED PRODUCTS

[Pavilion Round](#)

[Pavilion Round Impact Rated](#)

SPECIFICATIONS

CONSTRUCTION

HOUSING:

- Castings are low copper aluminum alloy die-cast
- Gaskets are molded silicone to prevent harmful ingress to the lamp and driver compartments
- IP65 rated

SHAFT:

- Aluminum shaft(s) is .188" thick extruded aluminum 6061 alloy
- Concrete shaft(s) conforms to current specifications for "Portland Cement." ASTM C150, Type I or II. Aggregates shall meet current requirements of "Specifications for Concrete Aggregates," ASTM C33. Water shall be clean and free from deleterious amounts of silt, oil, acids, alkalies or organic materials. Wire for reinforcement shall conform to ASTM A185. Steel for lugs and plates shall conform to ASTM A36, or A283 grade D
- Concrete shaft(s) is medium sand-blasted with anti-graffiti sealer and material color shall be integral to the concrete mix
- Concrete shaft(s) is cured to allow for completion of the hydration process, and result in a 28 day compressive strength of not less than 4,500 psi
- Concrete shaft(s) is cast from fiberglass molds used to insure uniform parts. Mold parting lines may be slightly visible in finished parts

OPTICS

- LEDs mount to a metal printed circuit board assembly (MCPCB)
- Optical lenses are clear injection molded PMMA acrylic
- U0 configurations have an optically clear flat tempered glass lens, all other configurations have either an optically clear or high transmission diffused acrylic lens

INSTALLATION

- Aluminum shaft configurations will have four 3/8" x 10" x 2" zinc plated L-hook anchor bolts shall to be installed with an included template. Nuts and washers are provided to level and secure the mounting plate to the anchor bolts
- Aluminum shaft configurations will have a mounting plate shall be able to be rotated 20° in either direction during installation for aiming adjustment
- Concrete shaft configurations will have four steel mounting tabs for installation on four 1/2" x 10" x 2" zinc electroplated L-hook anchor bolts. Each anchor bolt is supplied with two nuts, two washers, and a rigid pressed board template
- Concrete shaft configurations are palletized with adequate hold-downs to prevent load movement in transit
- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury

ELECTRICAL

- Universal voltage, 120 through 277V with a ±10% tolerance. Driver is Underwriters Laboratories listed
- High voltage configurations, 208-277, 347/480. Driver is Underwriters Laboratories listed
- "Thermal Shield", secondary side, thermistor provides protection for the sustainable life of LED module and electronic components
- Drivers are greater than a 0.9 power factor, less than 20% harmonic distortion, and be suitable for operation in -40°C to 40°C ambient environments
- Luminaire is capable of operating at 100% brightness in a 40°C environment. Both driver and optical array have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C

(Specifications continued on page 3)

KEY DATA	
Lumen Range	673–2162
Wattage Range	14–22
Efficacy Range (LPW)	43–107
Reported Life (Hours)	L70/60,000

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ORDERING GUIDE

Example: PA7S-FT-NU-1-12L-010-5K7-24A-BLS-SWP-UNV-EM

CATALOG #

HOUSING

PA7S							
Model	Top	Optics		Distribution		Light Engine	
PA7S Pavilion 7" Ø Square	FT Flat Top PT ¹ Peaked Top	NU	No Up-light	1	Type I	12L-010-AMB ¹¹	14W, Monochromatic Amber
		CH	Clear Horizontal Lens	2	Type II	12L-010-3K7	14W (1000 nominal lm), 3000K, 70 CRI
		CL ²	Clear Vertical Lens	3	Type III	12L-010-4K7	14W (1000 nominal lm), 4000K, 70 CRI
		DL ^{2,3}	Diffuse Vertical Lens	3HS	Type III + House side shield	12L-010-5K7	14W (1000 nominal lm), 5000K, 70 CRI
		LV	Louvers	4	Type IV	12L-020-AMB ¹¹	22W, Monochromatic Amber
		GC	Grille with clear vertical lens	5	Type V	12L-020-3K7	22W (2000 nominal lm), 3000K, 70 CRI
		GD ³	Grille with diffuse vertical lens			12L-020-4K7	22W (2000 nominal lm), 4000K, 70 CRI
						12L-020-5K7	22W (2000 nominal lm), 5000K, 70 CRI
Consult factory for other CCTs (2700K - 6500K) and CRIs (80, 90 CRI)							

Body		Fixture Finish		Control Options		Voltage		Options	
24A	24" OAH, Aluminum	BLS	Black Smooth	SWP ^{1,5}	SiteSync pre-commission	UNV	120-277V	EM ⁸	Battery Backup
42A	42" OAH, Aluminum	BLT	Black Textured	MW ⁶	Motion sensing (50% dim, 100% output upon detection)	120 ⁷	120V	LR ⁹	Luminous Accent
42BR-C	42" OAH, Brown Concrete	DBS	Dark Bronze Smooth	NXWE ¹²	NX Wireless pre-commission	277 ⁷	208-277V	SF ¹⁰	Single Fuse
42CH-C	42" OAH, Charcoal Concrete	GTT	Graphite Textured	SiteSync Accessories ⁺		347 ⁷	347V	DF ¹⁰	Double Fuse
42NG-C	42" OAH, Natural Gray Concrete	LGS	Light Gray Smooth	SWUSB	SiteSync Software on USB	480 ⁷	480V		
42WH-C	42" OAH, White Concrete	PSS	Platinum Silver Smooth	SWTAB	SiteSync Windows ⁺ Tablet				
42A-ROP ⁴	42" OAH, Aluminum + Dual Receptacle Outlet Panel and Cover	VGS	Verde Green Smooth	SWBRG	SiteSync Wireless Bridge Node				
42A-ROP-L ⁴	42" OAH, Aluminum + Dual Receptacle Outlet Panel and Locking Cover	WHS	White Smooth						
42A-2GEB	42" OAH, Aluminum + Integral Recessed 2 Gang Electrical Box	CC	Custom Color [*]						
42A-SG3	42" OAH, Aluminum + Speaker Grille Enclosure for 3" Ø speaker	[*] Consult factory for custom color, marine and corrosive finish options ⁺ PRECOMMISSIONED SITESYNC ORDERING INFORMATION: When ordering a fixture with the SiteSync lighting control option, additional information will be required to complete the order. The SiteSync Commissioning Form or alternate schedule information must be completed. This form includes Project location, Group information, and Operating schedules. For more detailed information please visit www.HubbellLighting.com/products/sitesync or contact Hubbell Lighting tech support at (800) 345-4928. Examples: PA7R/FT/NU3/12L-020-3K7/42A/TT/SWP/UNV/LR							

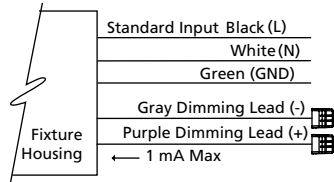
- 1 Adds .6 / 15mm to OAH (over all height).
- 2 CL and DL configurations shall be IK04
- 3 Only Available with 1 Type I or 5 Type V distributions only.
- 4 For GFCI/USB limited voltage to 120VAC only.
- 5 Specify group and zone at time of order. See www.hubbelllighting.com/sitesync for more details. Order at least one SiteSync interface accessory SWUSB or SWTAB. Each option contains SiteSync License, GUI, and Bridge Node.
- 6 24'Ø typical coverage area, not Available with CH.
- 7 Dedicated input voltage, required for MW Motions sensing.
- 8 -20°C min starting temperature, 90+ minute run time, output equivalent to 12L-010-#K7
- 9 Adds +5 watts and 1" / 254mm to overall height.
- 10 SF for 120, 277 and 347 input voltage, DF for 208, 240 and 480 input voltage.
- 11 Turtle friendly
- 12 Consult factory for details.

SPECIFICATIONS CONT'D

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

CONTROLS

- Standard fixtures dimming range shall be from 10% to 100% and be compatible with 0-10V, user-defined, control devices



- Optional motion sensor shall be capable of detecting motion 360° around the bollard. When no motion is detected for the specified time, the sensor wattage to factory preset level, reducing the light level accordingly. When motion is detected by the sensor, the bollard shall return to full wattage and full light output. Please contact KIM Lighting if project requirements vary from standard configuration

WIRELESS CONTROLS

BLUETOOTH:

- The Integral module shall enable the adjustment of the Luminous Accent to dim or change color to the desired setting when paired with Hubbell Lighting RGBW Remote App via cellular/tablet device
- The integral module shall be compatible with Bluetooth Low Energy (BLE) or Bluetooth Smart mobile devices operating on iOS8 or Android Gingerbread operating systems or newer
- Mobile App, dimming range from 0% to 100% through the use of HUBBELL LIGHTING RGBW app (available on IOS and Android)
- Color selection and adjustment
- Camera function for color matching
- Intensity slider for dimming/ramping up
- Save and rename up to 10 presets
- Group and rename fixtures
- Fixture is password protected, refer to instructions to set unique password

DMX:

- 6 wires: Red (DMX+), Brown (DMX-), Yellow (DMX Ground), Black (Line Voltage), White (common), and Green (Ground)
- Single DMX universe with six slots/addresses of virtual control which are pre-programmed at the factory:
 - DMX slot/address 1 = red
 - DMX slot/address 2 = green
 - DMX slot/address 3 = blue
 - DMX slot/address 4 = white
- Fully DMX RDM compatible
- Mobile App specification in additional information section

SITESYNC™

- SiteSync™ wireless control system for reduction in energy and maintenance cost while optimizing light quality 24/7. See ordering information or visit www.hubbellighting.com/products/sitesync for more details.

OPTIONAL BACKUP BATTERY

- Integral battery backup provides emergency path of egress lighting for the required 90 minutes for 0°C ambient environments

CAUTION:

- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury

CERTIFICATIONS AND LISTINGS

- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations and 40°C ambient temperatures
- IP65 optical system
- IEC 66262 Mechanical Impact Code IK10
- IDA approved, 3000K and warmer CCTs only.
- RoHS compliant

WARRANTY

- 5 year warranty
- See [HLI Standard Warranty](#) for additional information

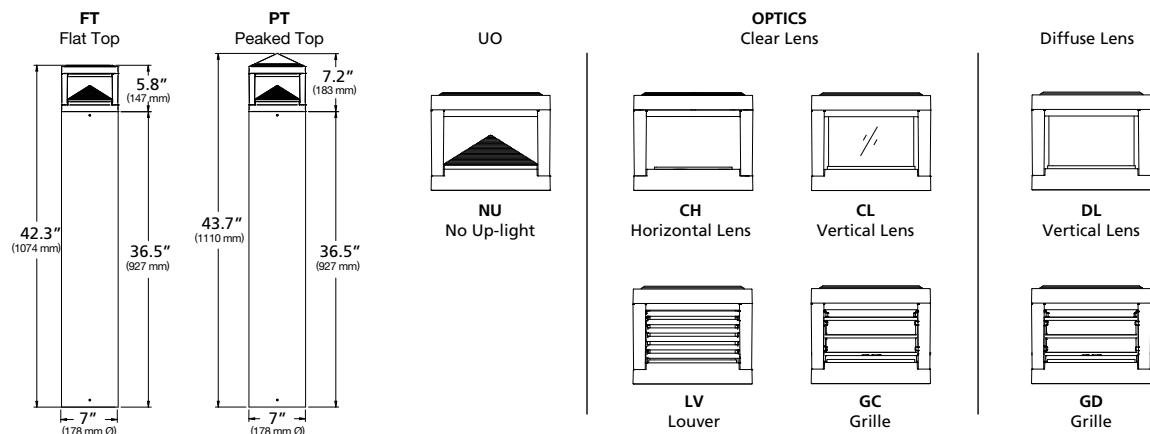
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Examples:
PA7R/FT/NU3/12L-020-3K7/42A/TT/SWP/UNV/LR



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DIMENSIONS



DELIVERED LUMENS

Drive Current	LEDs #	Nominal Lumens	Lens Options	Distribution	3000K 70CRI					4000K 70CRI					5000K 70CRI				
					Lumen	BUG Rating			lm/w	Lumen	BUG Rating			lm/w	Lumen	BUG Rating			lm/w
						B	U	G			B	U	G			B	U	G	
550mA	12L	2,000	NU U0 Optics	1	1019	0	0	0	47	1025	0	0	0	47	1091	0	0	0	50
				2	1209	0	0	0	56	1216	0	0	0	56	1294	0	0	0	60
				3	1203	0	0	0	55	1210	0	0	0	56	1289	0	0	0	59
				3HS	1132	0	0	0	52	1138	0	0	0	52	1212	0	0	0	56
				4	1330	0	0	0	61	1337	0	0	0	62	1424	0	0	0	66
				5	1273	1	0	0	59	1281	1	0	0	59	1363	1	0	0	63
			CH Clear Horizontal Lens	1	1784	0	3	1	82	1794	0	3	1	83	1910	0	3	1	88
				2	1680	1	3	1	77	1690	1	3	1	78	1799	1	3	1	83
				3	1723	1	3	1	79	1802	1	3	1	83	1772	1	3	1	82
				3HS	1375	0	3	1	63	1383	0	3	1	64	1473	0	3	1	68
				4	1701	0	3	1	78	1710	0	3	1	79	1821	0	3	1	84
				5	1635	1	3	1	75	1644	1	3	1	76	1751	1	3	1	81
			CL Clear Vertical Lens	1	1792	0	3	1	82	1802	0	3	1	83	1918	0	3	1	88
				2	1886	1	3	1	87	1897	1	3	1	87	2020	1	3	1	93
				3	1902	1	3	1	88	1913	1	3	1	88	2037	1	3	1	94
				3HS	1582	0	3	1	73	1591	0	3	1	73	1694	0	3	1	78
				4	2019	1	3	1	93	2031	1	3	1	93	2162	1	3	1	100
				5	1957	1	3	1	90	1968	1	3	1	91	2096	2	3	1	96
			DL Diffused Vertical Lens	1	1625	1	3	1	75	1635	1	3	1	75	1740	1	3	1	80
				5	1795	1	3	1	83	1805	1	3	1	83	1922	1	3	1	88

DELIVERED LUMENS (CONTINUED)

Drive Current	LEDs #	Nominal Lumens	Lens Options	Distribution	3000K 70CRI				4000K 70CRI				5000K 70CRI						
					Lumen	BUG Rating			lm/w	Lumen	BUG Rating			lm/w	Lumen	BUG Rating			lm/w
						B	U	G			B	U	G			B	U	G	
550mA	12L	2,000	LV External Louvers	1	1093	1	3	1	50	1100	1	3	1	51	1171	1	3	1	54
				2	1127	1	3	1	52	1133	1	3	1	52	1206	1	3	1	56
				3	1161	1	3	1	53	1168	1	3	1	54	1243	1	3	1	57
				3HS	927	0	3	1	43	932	0	3	1	43	992	0	3	1	46
				4	1243	1	3	1	57	1250	1	3	1	58	1331	1	3	1	61
				5	1235	1	3	1	57	1242	1	3	1	57	1323	1	3	1	61
			"GC Grill with Clear Lens"	1	1236	0	3	1	57	1243	0	3	1	57	1324	0	3	1	61
				2	1269	1	3	1	58	1276	1	3	1	59	1358	1	3	1	63
				3	1269	1	3	1	58	1276	1	3	1	59	1359	1	3	1	63
				3HS	1034	0	3	1	48	1040	0	3	1	48	1107	0	3	1	51
				4	1394	0	3	1	64	1402	0	3	1	65	1493	1	3	1	69
				5	1316	1	3	1	61	1323	1	3	1	61	1409	1	3	1	65
			GD Grill with Diffused Lens	1	1215	0	3	1	56	1222	0	3	1	56	1301	1	3	1	60
				5	1329	1	3	1	61	1336	1	3	1	62	1423	1	3	1	66

DELIVERED LUMENS (CONTINUED)

Drive Current	LEDs #	Nominal Lumens	Lens Options	Distribution	3000K 70CRI				4000K 70CRI				5000K 70CRI						
					Lumen	BUG Rating			lm/w	Lumen	BUG Rating			lm/w	Lumen	BUG Rating			lm/w
						B	U	G			B	U	G			B	U	G	
350mA	12L	1,000	NU U0 Optics	1	673	0	0	0	48	677	0	0	0	48	721	0	0	0	51
				2	798	0	0	0	57	803	0	0	0	57	855	0	0	0	61
				3	795	0	0	0	57	800	0	0	0	57	851	0	0	0	61
				3HS	748	0	0	0	53	752	0	0	0	54	800	0	0	0	57
				4	879	0	0	0	63	883	0	0	0	63	941	0	0	0	67
				5	841	1	0	0	60	846	1	0	0	60	901	1	0	0	64
			CH Clear Horizontal Lens	1	1129	0	3	1	81	1135	0	3	1	81	1209	0	3	1	86
				2	1063	0	3	1	76	1069	0	3	1	76	1138	0	3	1	81
				3	1047	0	3	1	75	1053	0	3	1	75	1121	0	3	1	80
				3HS	870	0	3	1	62	875	0	3	1	63	932	0	3	1	67
				4	1076	0	3	1	77	1082	0	3	1	77	1152	0	3	1	82
				5	1035	1	3	1	74	1040	1	3	1	74	1108	1	3	1	79
			CL Clear Vertical Lens	1	1243	0	3	1	89	1250	0	3	1	89	1331	0	3	1	95
				2	1309	0	3	1	93	1316	0	3	1	94	1401	1	3	1	100
				3	1320	0	3	1	94	1328	0	3	1	95	1414	1	3	1	101
				3HS	1097	0	3	1	78	1104	0	3	1	79	1175	0	3	1	84
				4	1402	0	3	1	100	1409	0	3	1	101	1501	0	3	1	107
				5	1358	1	3	1	97	1366	1	3	1	98	1454	1	3	1	104
			DL Diffused Vertical Lens	1	1109	0	3	1	79	1115	0	3	1	80	1187	0	3	1	85
				5	1218	1	3	1	87	1225	1	3	1	88	1305	1	3	1	93
			LV External Louvers	1	812	0	3	1	58	817	0	3	1	58	869	0	3	1	62
				2	837	1	3	1	60	841	1	3	1	60	896	1	3	1	64
				3	862	0	3	1	62	867	0	3	1	62	923	0	3	1	66
				3HS	688	0	3	1	49	692	0	3	1	49	737	0	3	1	53
				4	923	0	3	1	66	928	0	3	1	66	988	0	3	1	71
				5	917	1	3	1	66	922	1	3	1	66	982	1	3	1	70
			GC Grill with Clear Lens	1	938	0	3	1	67	943	0	3	1	67	1004	0	3	1	72
				2	962	0	3	1	69	968	0	3	1	69	1031	0	3	1	74
				3	963	0	3	1	69	968	0	3	1	69	1031	0	3	1	74
				3HS	784	0	3	1	56	789	0	3	1	56	840	0	3	1	60
				4	1058	0	3	1	76	1064	0	3	1	76	1133	0	3	1	81
				5	998	1	3	1	71	1004	1	3	1	72	1069	1	3	1	76
			GD Grill with Diffused Lens	1	804	0	3	1	57	809	0	3	1	58	861	0	3	1	62
				5	897	1	3	1	64	902	1	3	1	64	960	1	3	1	69

PA7S

BOLLARD

PHOTOMETRY

PA7S-CH1-12L-020-4K7

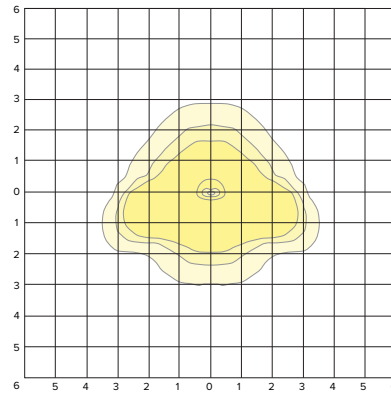
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1794
Watts	21.84
Efficacy	82.0
IES Type	I
BUG Rating	B0-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	1021	80.3%
Downward House Side	251	19.7%
Downward Total	1272	71%
Upward Street Side	318	61%
Upward House Side	204	39%
Upward Total	522	29%
Total Flux	1794	100%

ISOFOOT CANDLE PLOT



PA7S-CH2-12L-020-4K7

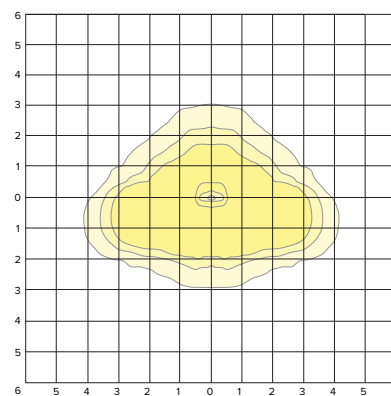
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1690
Watts	21.79
Efficacy	78.0
IES Type	II
BUG Rating	B1-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	1046	77.8%
Downward House Side	299	22.2%
Downward Total	1345	79%
Upward Street Side	201	58%
Upward House Side	146	42%
Upward Total	347	21%
Total Flux	1692	100%

ISOFOOT CANDLE PLOT



PA7S-CH3-12L-020-4K7

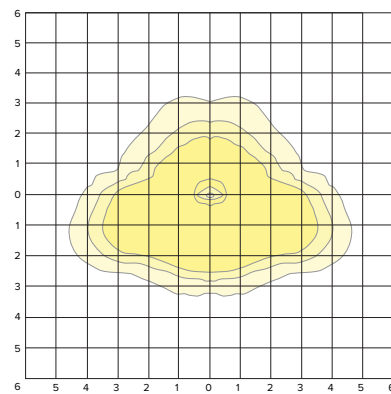
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1802
Watts	21.97
Efficacy	82.0
IES Type	II
BUG Rating	B1-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	1165	79.2%
Downward House Side	306	20.8%
Downward Total	1471	82%
Upward Street Side	190	57%
Upward House Side	142	43%
Upward Total	332	18%
Total Flux	1803	100%

ISOFOOT CANDLE PLOT



PA7S

BOLLARD

PHOTOMETRY(CONTINUED)

PA7S-CH3HS-12L-020-4K7

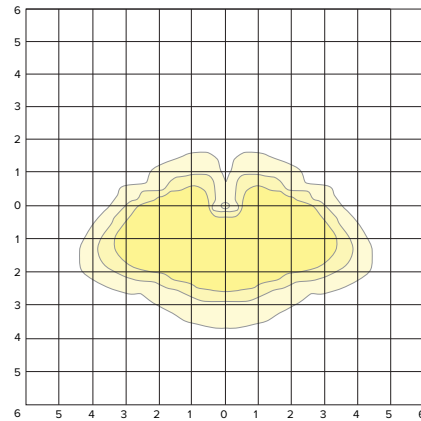
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1383
Watts	21.78
Efficacy	63.0
IES Type	II
BUG Rating	B0-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	992	90.0%
Downward House Side	110	10.0%
Downward Total	1102	80%
Upward Street Side	216	77%
Upward House Side	66	23%
Upward Total	281	20%
Total Flux	1383	100%

ISOFOOT CANDLE PLOT



PA7S-CH4-12L-020-4K7

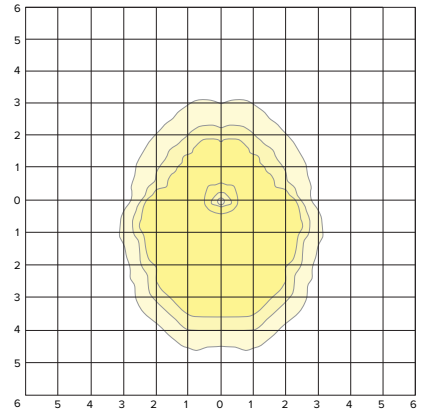
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1711
Watts	21.6
Efficacy	79.0
IES Type	IV
BUG Rating	B0-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	1180	83.7%
Downward House Side	231	16.4%
Downward Total	1410	82%
Upward Street Side	171	57%
Upward House Side	130	43%
Upward Total	301	18%
Total Flux	1711	100%

ISOFOOT CANDLE PLOT



PA7S-CH5-12L-020-4K7

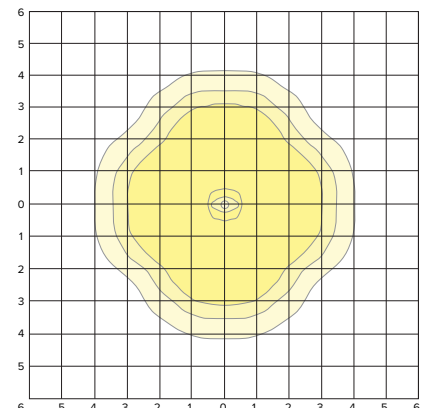
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1644
Watts	21.57
Efficacy	76.0
IES Type	VS
BUG Rating	B1-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	686	50.0%
Downward House Side	686	50.0%
Downward Total	1372	83%
Upward Street Side	136	50%
Upward House Side	136	50%
Upward Total	272	17%
Total Flux	1644	100%

ISOFOOT CANDLE PLOT



PA7S

BOLLARD

PHOTOMETRY(CONTINUED)

PA7S-CL1-12L-020-4K7

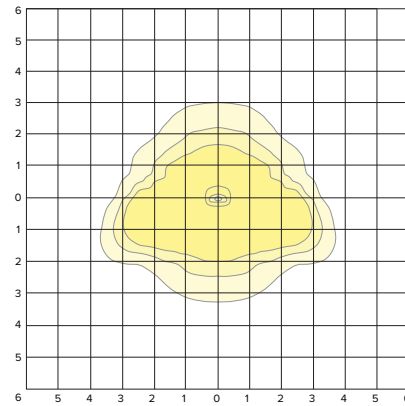
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1802
Watts	21.72
Efficacy	83.0
IES Type	I
BUG Rating	B0-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	1026	79.1%
Downward House Side	271	20.9%
Downward Total	1297	72%
Upward Street Side	305	60%
Upward House Side	202	40%
Upward Total	507	28%
Total Flux	1804	100%

ISOFOOT CANDLE PLOT



PA7S-CL2-12L-020-4K7

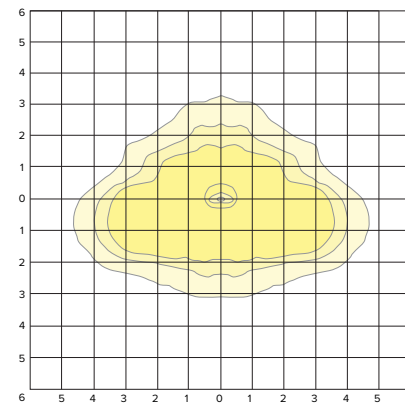
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1897
Watts	21.54
Efficacy	88.0
IES Type	II
BUG Rating	B1-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	1183	78.1%
Downward House Side	332	21.9%
Downward Total	1515	80%
Upward Street Side	224	58%
Upward House Side	159	42%
Upward Total	383	20%
Total Flux	1898	100%

ISOFOOT CANDLE PLOT



PA7S-CL3-12L-020-4K7

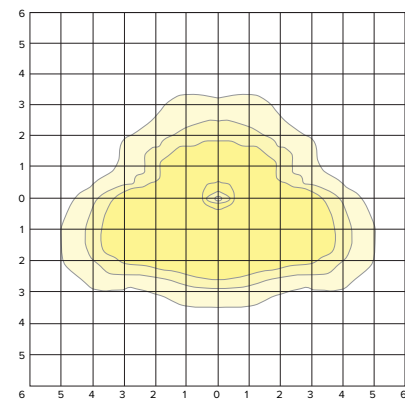
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1913
Watts	21.55
Efficacy	89.0
IES Type	III
BUG Rating	B1-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	1254	79.6%
Downward House Side	322	20.4%
Downward Total	1576	82%
Upward Street Side	196	58%
Upward House Side	142	42%
Upward Total	338	18%
Total Flux	1914	100%

ISOFOOT CANDLE PLOT



PA7S

BOLLARD

PHOTOMETRY(CONTINUED)

PA7S-CL3HS-12L-020-4K7

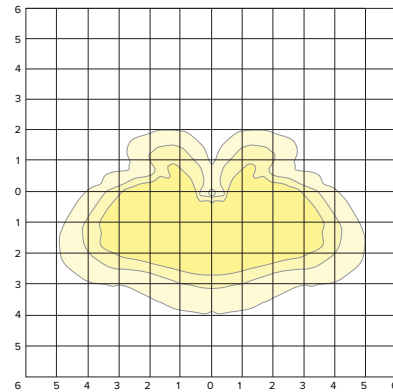
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1591
Watts	21.71
Efficacy	73.0
IES Type	III
BUG Rating	B0-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	1141	89.0%
Downward House Side	141	11.0%
Downward Total	1282	81%
Upward Street Side	235	76%
Upward House Side	74	24%
Upward Total	310	19%
Total Flux	1592	100%

ISOFOOT CANDLE PLOT



PA7S-CL4-12L-020-4K7

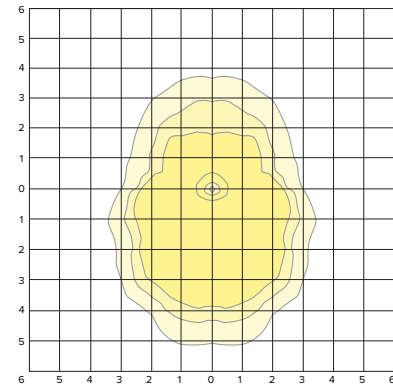
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	2031
Watts	21.72
Efficacy	94.0
IES Type	IV
BUG Rating	B1-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	1432	84.4%
Downward House Side	265	15.6%
Downward Total	1697	84%
Upward Street Side	189	56%
Upward House Side	146	44%
Upward Total	335	16%
Total Flux	2032	100%

ISOFOOT CANDLE PLOT



PA7S-CL5-12L-020-4K7

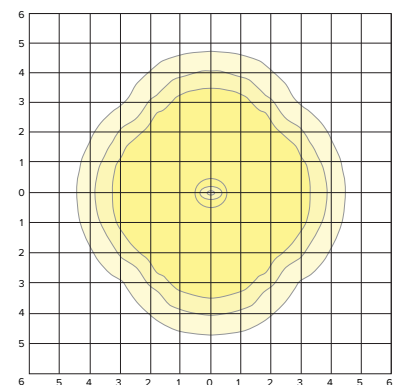
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1968
Watts	21.72
Efficacy	91.0
IES Type	VS
BUG Rating	B1-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	834	50.0%
Downward House Side	834	50.0%
Downward Total	1667	85%
Upward Street Side	151	50%
Upward House Side	151	50%
Upward Total	302	15%
Total Flux	1969	100%

ISOFOOT CANDLE PLOT



PA7S

BOLLARD

PHOTOMETRY(CONTINUED)

PA7S-DL1-12L-020-4K7

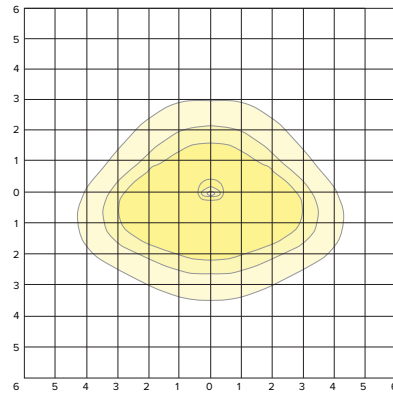
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1636
Watts	21.62
Efficacy	76.0
IES Type	II
BUG Rating	B1-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	802	71.9%
Downward House Side	314	28.1%
Downward Total	1116	68%
Upward Street Side	306	59%
Upward House Side	215	41%
Upward Total	521	32%
Total Flux	1637	100%

ISOFOOT CANDLE PLOT



PA7S-DL5-12L-020-4K7

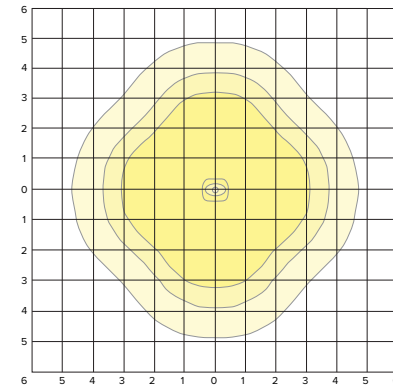
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1805
Watts	21.73
Efficacy	83.0
IES Type	VS
BUG Rating	B1-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	725	50.0%
Downward House Side	725	50.0%
Downward Total	1449	80%
Upward Street Side	178	50%
Upward House Side	178	50%
Upward Total	356	20%
Total Flux	1805	100%

ISOFOOT CANDLE PLOT



PA7S-GC1-12L-020-4K7

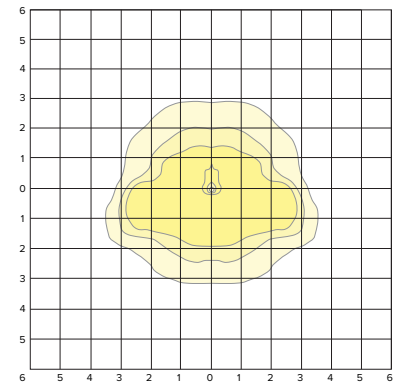
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1242
Watts	21.84
Efficacy	57.0
IES Type	I
BUG Rating	B0-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	582	71.9%
Downward House Side	227	28.1%
Downward Total	809	65%
Upward Street Side	262	60%
Upward House Side	173	40%
Upward Total	435	35%
Total Flux	1244	100%

ISOFOOT CANDLE PLOT



PA7S

BOLLARD

PHOTOMETRY(CONTINUED)

PA7S-GC2-12L-020-4K7

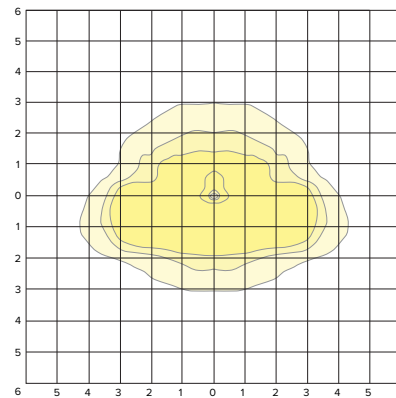
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1276
Watts	21.82
Efficacy	58.0
IES Type	II
BUG Rating	B1-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	676	72.4%
Downward House Side	258	27.6%
Downward Total	934	73%
Upward Street Side	205	60%
Upward House Side	138	40%
Upward Total	343	27%
Total Flux	1277	100%

ISOFOOT CANDLE PLOT



PA7S-GC3-12L-020-4K7

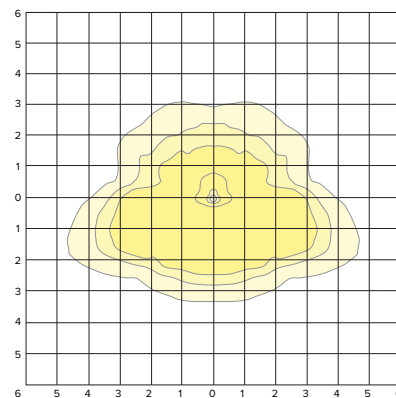
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1276
Watts	21.68
Efficacy	59.0
IES Type	II
BUG Rating	B1-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	705	74.1%
Downward House Side	246	25.9%
Downward Total	951	74%
Upward Street Side	200	61%
Upward House Side	127	39%
Upward Total	327	26%
Total Flux	1278	100%

ISOFOOT CANDLE PLOT



PA7S-GC3HS-12L-020-4K7

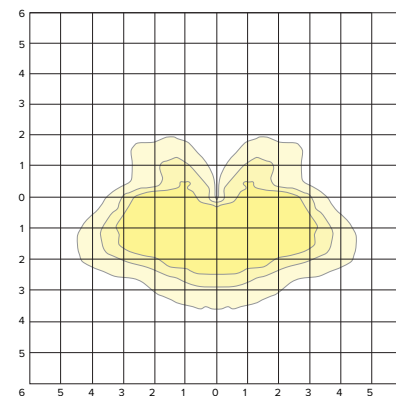
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1040
Watts	21.68
Efficacy	48.0
IES Type	III
BUG Rating	B0-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	657	85.5%
Downward House Side	112	14.6%
Downward Total	768	74%
Upward Street Side	218	80%
Upward House Side	54	20%
Upward Total	272	26%
Total Flux	1040	100%

ISOFOOT CANDLE PLOT



PA7S

BOLLARD

PHOTOMETRY(CONTINUED)

PA7S-GC4-12L-020-4K7

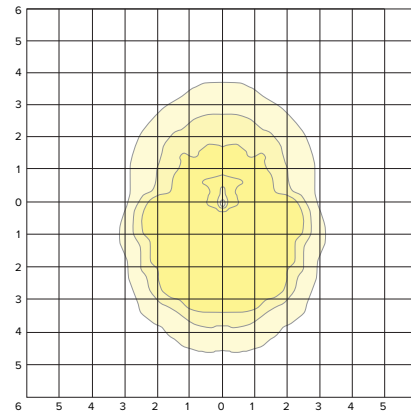
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1402
Watts	21.82
Efficacy	64.0
IES Type	IV
BUG Rating	B0-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	829	78.6%
Downward House Side	226	21.4%
Downward Total	1055	75%
Upward Street Side	219	63%
Upward House Side	130	37%
Upward Total	348	25%
Total Flux	1403	100%

ISOFOOT CANDLE PLOT



PA7S-GC5-12L-020-4K7

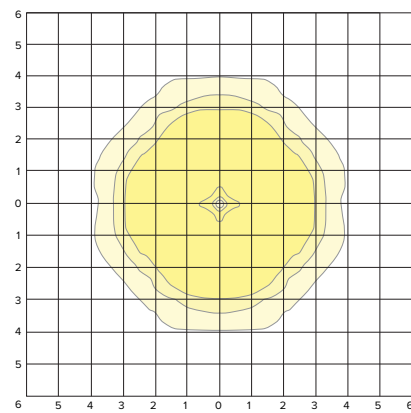
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1324
Watts	21.71
Efficacy	61.0
IES Type	VS
BUG Rating	B1-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	505	50.0%
Downward House Side	505	50.0%
Downward Total	1010	76%
Upward Street Side	157	50%
Upward House Side	157	50%
Upward Total	314	24%
Total Flux	1324	100%

ISOFOOT CANDLE PLOT



PA7S-GD1-12L-020-4K7

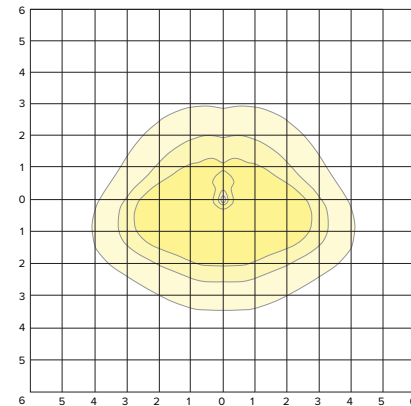
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1222
Watts	21.72
Efficacy	56.0
IES Type	II
BUG Rating	B0-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	504	67.7%
Downward House Side	242	32.5%
Downward Total	745	61%
Upward Street Side	276	58%
Upward House Side	202	42%
Upward Total	477	39%
Total Flux	1222	100%

ISOFOOT CANDLE PLOT



PA7S

BOLLARD

PHOTOMETRY(CONTINUED)

PA7S-GD5-12L-020-4K7

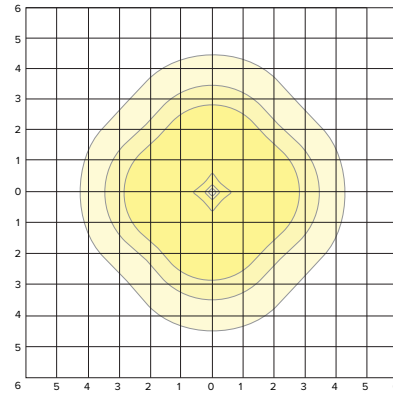
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1336
Watts	21.71
Efficacy	52.0
IES Type	VS
BUG Rating	B1-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	471	50.0%
Downward House Side	471	50.0%
Downward Total	942	70%
Upward Street Side	198	50%
Upward House Side	198	50%
Upward Total	395	30%
Total Flux	1337	100%

ISOFOOT CANDLE PLOT



PA7S-LV1-12L-020-4K7

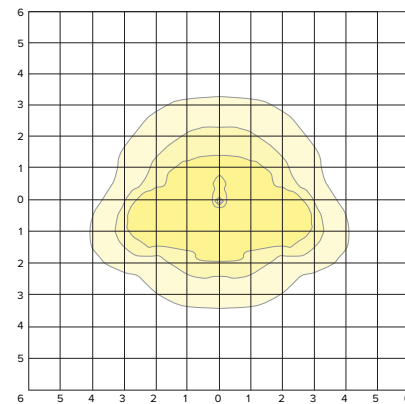
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1100
Watts	21.63
Efficacy	51.0
IES Type	II
BUG Rating	B1-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	493	66.0%
Downward House Side	254	34.0%
Downward Total	747	68%
Upward Street Side	222	63%
Upward House Side	132	37%
Upward Total	353	32%
Total Flux	1100	100%

ISOFOOT CANDLE PLOT



PA7S-LV2-12L-020-4K7

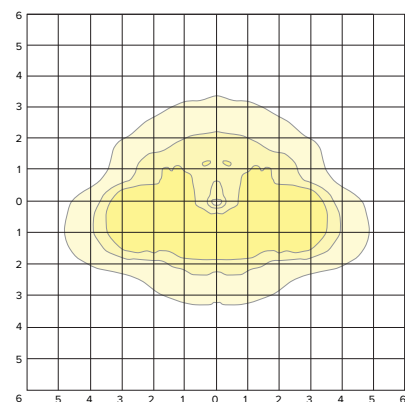
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1133
Watts	21.64
Efficacy	52.0
IES Type	II
BUG Rating	B1-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	620	69.9%
Downward House Side	267	30.1%
Downward Total	887	78%
Upward Street Side	161	65%
Upward House Side	86	35%
Upward Total	247	22%
Total Flux	1134	100%

ISOFOOT CANDLE PLOT



PA7S

BOLLARD

PHOTOMETRY(CONTINUED)

PA7S-LV3-12L-020-4K7

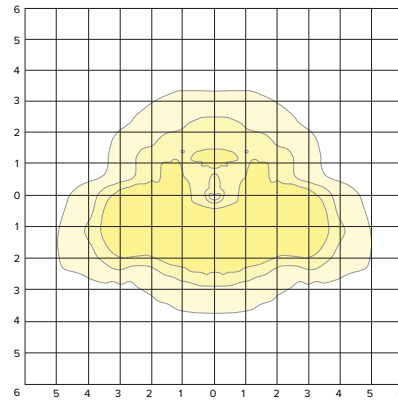
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1168
Watts	21.65
Efficacy	54.0
IES Type	III
BUG Rating	B1-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	678	72.9%
Downward House Side	252	27.1%
Downward Total	930	80%
Upward Street Side	161	67%
Upward House Side	78	33%
Upward Total	239	20%
Total Flux	1169	100%

ISOFOOT CANDLE PLOT



PA7S-LV3HS-12L-020-4K7

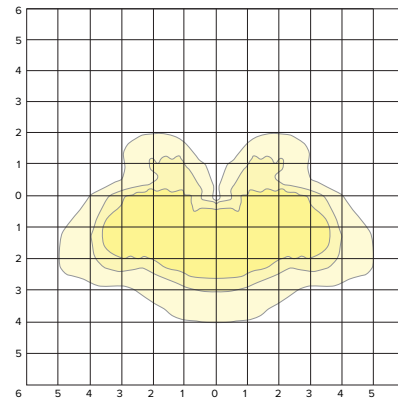
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	933
Watts	21.66
Efficacy	43.0
IES Type	III
BUG Rating	B0-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	619	84.6%
Downward House Side	114	15.6%
Downward Total	732	78%
Upward Street Side	161	80%
Upward House Side	40	20%
Upward Total	201	22%
Total Flux	933	100%

ISOFOOT CANDLE PLOT



PA7S-LV4-12L-020-4K7

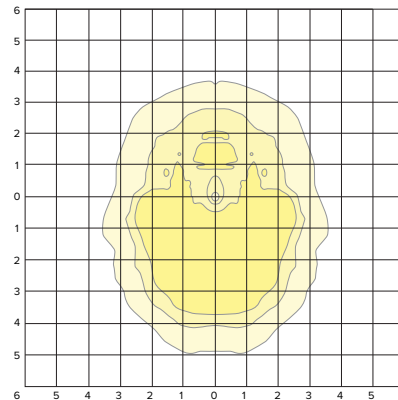
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1250
Watts	21.64
Efficacy	58.0
IES Type	IV
BUG Rating	B1-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	779	77.7%
Downward House Side	223	22.2%
Downward Total	1003	80%
Upward Street Side	171	69%
Upward House Side	77	31%
Upward Total	248	20%
Total Flux	1251	100%

ISOFOOT CANDLE PLOT



PA7S

BOLLARD

PHOTOMETRY(CONTINUED)

PA7S-LV5-12L-020-4K7

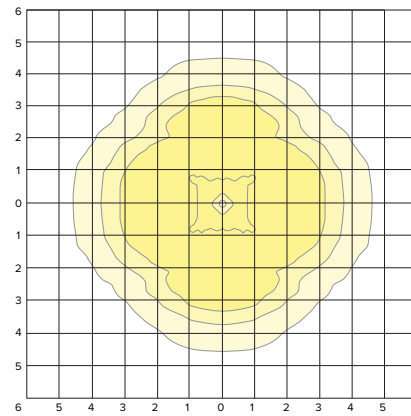
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1242
Watts	21.63
Efficacy	57.0
IES Type	VS
BUG Rating	B1-U3-G1
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	511	50.0%
Downward House Side	511	50.0%
Downward Total	1023	82%
Upward Street Side	110	50%
Upward House Side	110	50%
Upward Total	219	18%
Total Flux	1242	100%

ISOFOOT CANDLE PLOT



PA7S-NU1-12L-020-4K7

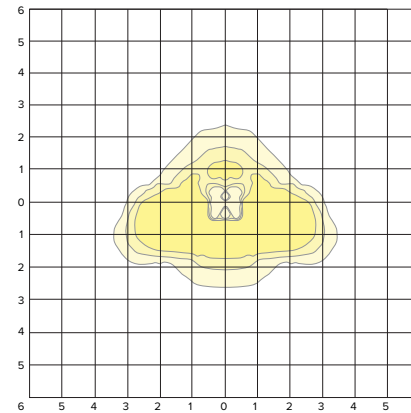
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1025
Watts	21.86
Efficacy	47.0
IES Type	I
BUG Rating	B0-U0-G0
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	881	85.9%
Downward House Side	145	14.1%
Downward Total	1026	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	1026	100%

ISOFOOT CANDLE PLOT



PA7S-NU2-12L-020-4K7

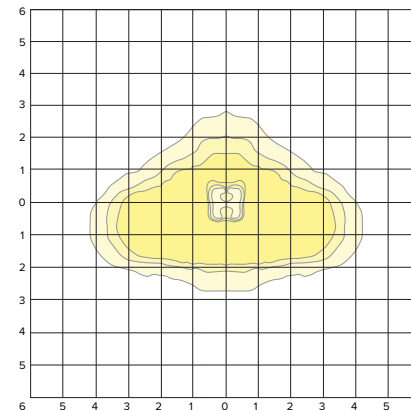
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1216
Watts	21.86
Efficacy	56.0
IES Type	II
BUG Rating	B0-U0-G0
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	988	81.2%
Downward House Side	229	18.8%
Downward Total	1217	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	1217	100%

ISOFOOT CANDLE PLOT



PA7S

BOLLARD

PHOTOMETRY(CONTINUED)

PA7S-NU3-12L-020-4K7

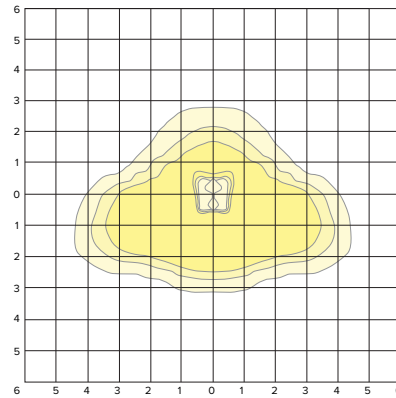
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1210
Watts	21.86
Efficacy	55.0
IES Type	II
BUG Rating	B0-U0-G0
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	1004	83.0%
Downward House Side	207	17.1%
Downward Total	1210	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	1210	100%

ISOFOOT CANDLE PLOT



PA7S-NU3HS-12L-020-4K7

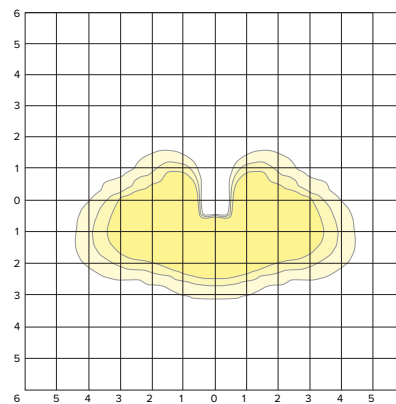
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1138
Watts	21.85
Efficacy	52.0
IES Type	II
BUG Rating	B0-U0-G0
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	997	87.6%
Downward House Side	141	12.4%
Downward Total	1138	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	1138	100%

ISOFOOT CANDLE PLOT



PA7S-NU4-12L-020-4K7

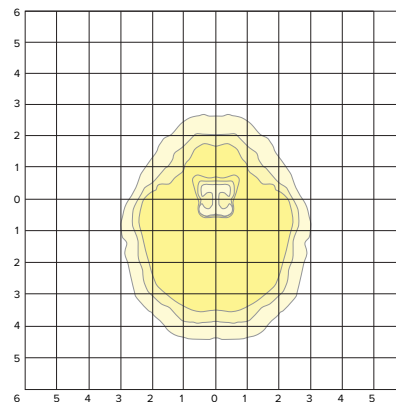
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1337
Watts	21.85
Efficacy	61.0
IES Type	IV
BUG Rating	B0-U0-G0
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	1187	88.7%
Downward House Side	151	11.3%
Downward Total	1338	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	1338	100%

ISOFOOT CANDLE PLOT



PA7S

BOLLARD

PHOTOMETRY(CONTINUED)

PA7S-NU5-12L-020-4K7

LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	1281
Watts	21.84
Efficacy	59.0
IES Type	VS
BUG Rating	B1-U0-G0
Mounting Height	3.5 ft
Grid Scale	6 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	641	50.0%
Downward House Side	641	50.0%
Downward Total	1282	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	1282	100%

DATE:

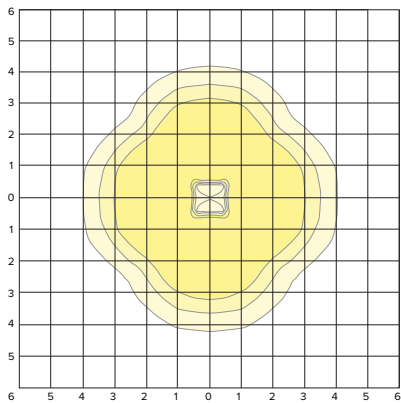
LOCATION:

TYPE:

PROJECT:

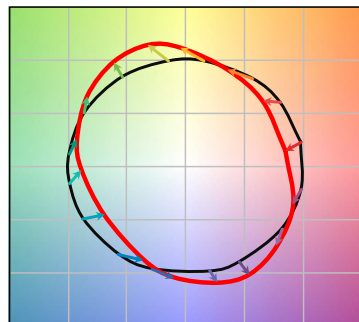
CATALOG #:

ISOFOOT CANDLE PLOT



TM-30 DATA

COLOR VECTOR GRAPHIC

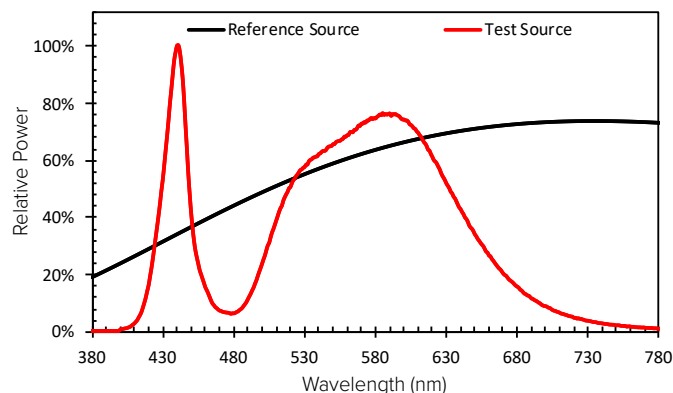


— Reference Illuminant — Test Source

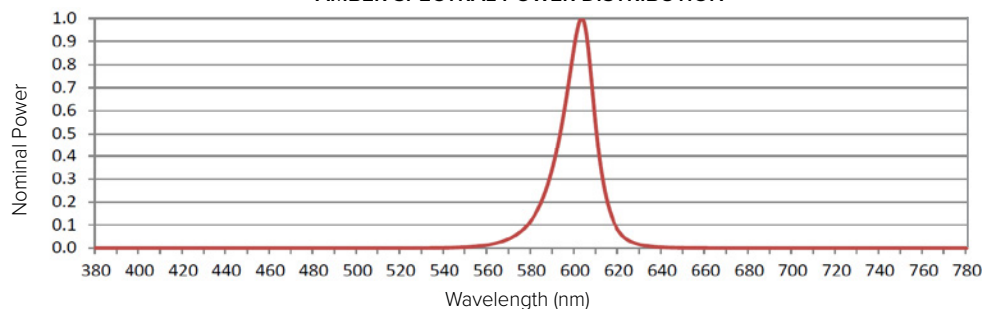
TEST SOURCE

R _f	68
R _a	99
CCT(K)	3947
D _{uv}	0.0004
x	0.3831
y	0.3793
CIE R _a	72

SPECTRAL POWER DISTRIBUTION COMPARISON



AMBER SPECTRAL POWER DISTRIBUTION



ELECTRICAL DATA

												Dimming				
Drive Current	System Watts	Line Voltage		Amps AC						Min. Power Factor	Max THD (%)	Dimming Range	Source current out of 0-10V		Absolute voltage range on 0-10V (+)	
		VAC	Hz	120	208	240	277	347	480				Min	Max	Min	Max
500mA	22	120-480	50/60	0.18	0.11	0.09	0.08	0.06	0.05	>0.9	20	10% to 100%	0mA	1mA	0V	10V
350mA	14			0.12	0.07	0.06	0.05	0.04	0.03							

TM-21 Lifetime Calculation - Projected Lumen Maintenance (25°C / 77°C)						
Ambient Temp.	0	25,000	36,000	50,000	100,000	Reported L70
25°C / 77°F	100%	98%	97%	95%	90%	60khrs
40°C / 104°F	100%	98%	97%	95%	90%	

CRI Lumen Multiplier 80 and 90 CRI		
CCT	80 CRI	90 CRI
2700K	0.859	0.655
3000K	0.9119	0.7033
3500K	0.906	0.732
4000K	0.8941	0.734
5000K	0.879	0.7712
Scaling factor of 5000K 70CRI lumen packages		

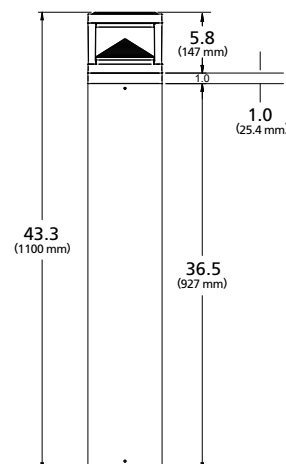
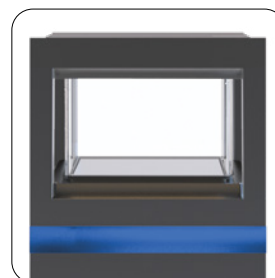
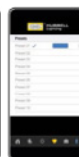
ADDITIONAL INFORMATION

LUMINOUS ACCENT:

- The Luminous Accent option adds an additional 1" / 25.4mm to the overall fixture height and may be controlled via wired DMX RDM or Bluetooth wireless. The Luminous Accent shall be IK08.

HUBBELL LIGHTING RGBW REMOTE APP

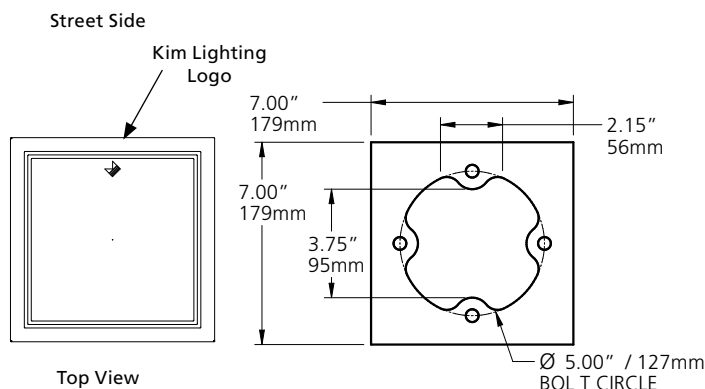
- The Hubbell Lighting RGBW Remote application may be downloaded free of charge from the Apple App Store or Google Play.
- Color selection and adjustment.
- Camera function for color matching.
- Intensity slider for dimming/ramping up.
- Save and rename up to 10 presets.
- Group and rename fixtures.
- Fixture is password protected, refer to instructions to set unique password.



MOUNTING

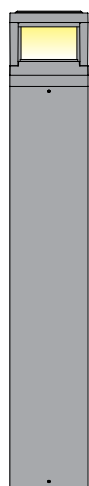
ALUMINUM BODY

- Once attached to base mounting plate, fixture may be rotated 20° in either direction and secured with set screws at base of the bollard body. KIM Lighting logo indicates 'street side' output.

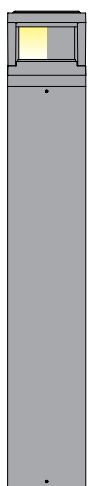


SHIELDING

- HS configurations feature factory installed 180° shield(s) that may also be installed in the field for any Optic configuration.



HS Front View



HS Side View



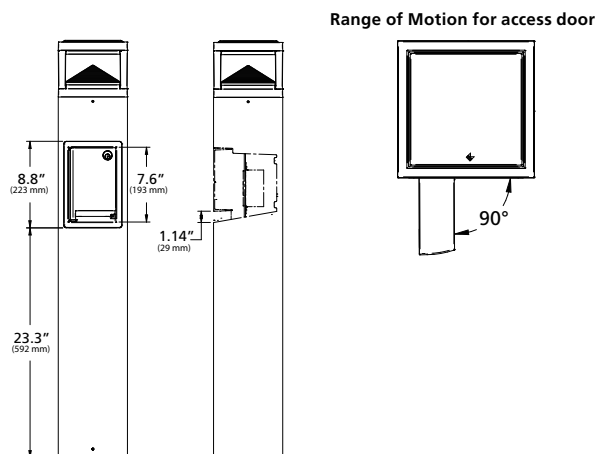
HS xBack View

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ADDITIONAL INFORMATION (CONTINUED)

RECEPTACLE OUTLET PANEL

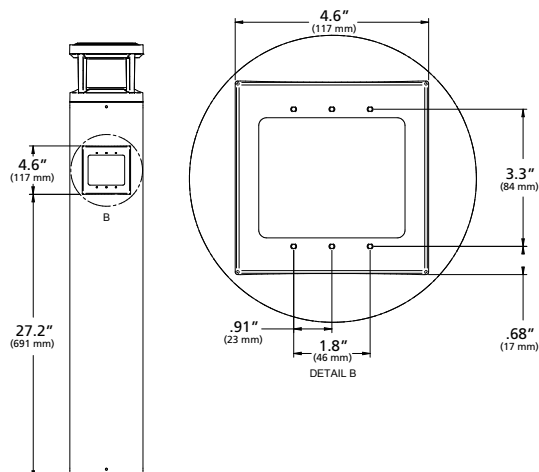
- The Receptacle outlet panel shall be NEMA 3R rated for wet location(s) while in use and shall be compatible with any single receptacle outlet device with standard mounting holes. Door shall be self-closing. Tamper resistant lock must be specified at time of order. Devices and device wiring by others.



HUBBELL WIRING DEVICES USB DEVICES: <http://ecatalog.hubbell-wiring.com/productinformation/viewcatalog.aspx?Dest=hubbell-wiring.com/press/catalog/A.pdf&Page=18>

INTEGRAL ELECTRICAL BOX

- The integral 2 Gang electrical box shall be 3" deep and have standard mounting holes for installing either a single receptacle outlet device or a pair of single receptacle outlet device. Devices, device wiring, device hardware and bezel by others.



HUBBELL WIRING DEVICES GFCI DEVICES: <http://ecatalog.hubbell-wiring.com/productinformation/viewcatalog.aspx?Dest=hubbell-wiring.com/press/catalog/K.pdf>

SPEAKER GRILLE ENCLOSURE

- The speaker grille enclosure shall accommodate a 3"Ø marine grade speaker rated for outdoor use. Grille shall be secured with (4) Torx # screws for accessibility. Mounting provisions as shown. Speaker, mounting bracket/hardware and wiring by others.

