

KFL1

STATIC WHITE ARCHITECTURAL FLOOD

**Architectural
FLOODLIGHT COLLECTION**

FEATURES

- Lumen range from 2,000 to 4,000 lm
- Color Temperature 3000K, 4000K, 5,000K at 70 and 80 CRI
- Yoke and Threaded Knuckle mounting options
- 6 beam distributions and beam angles including: Narrow 17°x17°, Medium 28°x27°, Medium Flood 62°x61°, Wide 79°x64°, Horizontal 54°x22°, and Vertical 22°x54°



KFL1 White

RELATED PRODUCTS

Ouro

Pavilion

Intent

SPECIFICATIONS

CONSTRUCTION

- One piece die-cast, low copper (<0.6% Cu) Aluminum Alloy 360 with vents and .100" minimum wall thickness
- Finish: fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat
- Lens is impact resistant 1/8" tempered glass with anti-reflective coating
- Lens has a one-piece extruded vulcanized silicone gasket
- Lens frame one piece die-cast, low copper (<0.6% Cu) Aluminum Alloy 360 and .100" minimum wall thickness
- Lens frame has a one-piece O-ring extruded vulcanized silicone gasket
- Mid-frame one piece die-cast, low copper (<0.6% Cu) Aluminum Alloy 360 and .100" minimum wall thickness
- Mid-frame secures to Lens Frame and housing by stainless steel recessed Allen-head screws
- Silicone gaskets throughout
- All external fasteners are stainless steel

OPTICS

- LEDs mount to a metal printed circuit board assembly (MCPCB)
- Optical lenses are clear injection molded PMMA acrylic

INSTALLATION

- 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 recognized
- High voltage configurations, 347/480. Driver has a 0-10V dimming interface for multi-level illumination options. Driver is Underwriters Laboratories recognized
- "Thermal Shield", secondary side, thermistor provides protection for the sustainable life of LED module and electronic components
- Drivers shall have 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 shall be 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
- Dimming range from 10% to 100% through the use of standard 0-10V interface on the programmable driver
- Modular wiring harness in the service area provides user access to the dimming circuitry

ELECTRICAL (CONTINUED)

- Optional factory programmed dimming profile
- Surge protection: 10,000k in parallel, 20,000k in series
- SF for 120, 277, 347 Line volts
DF for 208, 240, 480 Line volts
- Wiring: No. 18AWM rated 105°C, wet rating.

CERTIFICATIONS AND LISTINGS

- UL 1598 Standard for Luminaires
- IP66 certified
- 3G rated for ANSI C136.31 high vibration applications
- RoHS compliant
- IEC 66262 Mechanical Impact Code IK08

WARRANTY

- 5 year warranty

KEY DATA	
Lumen Range	1,839–4,105
Wattage Range	20–40
Efficacy Range (LPW)	93.3–117.5
Reported Life (Hours)	L70/60,000
Weight	9 lbs 4.08 kg
EPA Front View / Side View	.53 / .25

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STATIC WHITE ARCHITECTURAL FLOOD

ORDERING GUIDE

Example: KFL1-16L-40-3K7-WF-UNV-K-GTT-BD

CATALOG #

HOUSING

KFL1		LED Engine		CCT/CRI		Beam Spread		Voltage		Mounting		Color	
KFL1	Architectural Floodlight	8L-20	20W, 2,000 lm	3K7	3000K, 70 CRI	N	Narrow	UNV	120–277V	Y	Architectural Yoke	BLS	Black Gloss Smooth
		16L-40	40W, 4,000 lm	3K8	3000K, 80 CRI	M	Medium	347	347V	K	Threaded Knuckle	BLT	Black Matte Textured
				4K7	4000K, 70 CRI	MF	Medium Flood	480	480V			DBS	Dark Bronze Gloss Smooth
				4K8	4000K, 80 CRI	WF	Wide Flood					DBT	Dark Bronze Matte Textured
				5K7	5000K, 70 CRI	HF	Horizontal Flood					GTT	Graphite Matte Textured
				5K8	5000K, 80 CRI	VF	Vertical Flood					LGS	Light Grey Gloss Smooth
												LGT	Light Grey Matte Textured
										PSS	Platinum Silver Gloss Smooth		
										VGT	Verde Green Matte Textured		
										WHS	White Gloss Smooth		
										WHT	White Matte Textured		
										Color Option			
										CC ¹	Custom Color		

Options	Optical Options
SF Single Fuse 120, 277, 347 Line Volts	BD Barn Doors
DF Double Fuse 208, 240, 480 Line Volts	HS Half Glare Shield

Mounting Accessories

Mounting Accessories	Accessories Color
JBR 2/3/21/24 ² Brass In-Grade Architectural Junction Box	BLS Black Gloss Smooth
JBR 4/5 ² Composite In-Grade Architectural Junction Box	BLT Black Matte Textured
JBR30 ² (2) ½" NPT in bottom, (2) 19" long stakes Brass In-Grade Staked Junction Box	DBS Dark Bronze Gloss Smooth
JBR32 ² (2) ½" NPT in bottom, (2) 19" long stakes with 9' cord Brass In-Grade Staked Junction Box	DBT Dark Bronze Matte Textured
J-27N Surface Mount	GTT Graphite Matte Textured
SM18 Stanchion Mount	LGS Light Grey Gloss Smooth
SPM Side Pole Mount	LGT Light Grey Matte Textured
JB1 Architectural Junction Box	PSS Platinum Silver Gloss Smooth
WM Wall or Ceiling Mount	VGT Verde Green Matte Textured
WM1 Wall Mount	WHS White Gloss Smooth
TM2 Twin Mount	WHT White Matte Textured
PT Post Top Mount	Color Option
PT2 Twin Post Top Mount	CC ¹ Custom Color

Notes:
 1 Consult factory for custom color, marine and corrosive finish options
 2 See pages 8 for all JBR options and ordering logic

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STATIC WHITE ARCHITECTURAL FLOOD

DELIVERED LUMENS

LEDs #	Nominal Watts	Nominal Lumens	Distribution	Beam Angles	3000K 70CRI			4000K 70CRI			5000K 70CRI		
					Lumen	Center Beam Candlepower	lm/w	Lumen	Center Beam Candlepower	lm/w	Lumen	Center Beam Candlepower	lm/w
8L	20	2000	N	17° x 17°	1895	15710	98.5	1948	16150	101.2	2022	16763	104.9
			M	28° x 28°	2003	6789	104.1	2059	6979	107.0	2137	7243	111.0
			MF	61° x 63°	1968	2139	102.3	2023	2199	105.1	2100	2283	109.1
			WF	79° x 83°	2118	1585	109.2	2177	1606	113.1	2260	1670	117.5
			HF	54° x 22°	1841	3276	95.7	1892	3367	98.3	1964	3495	102.0
			VF	22° x 54°	1839	3198	95.6	1890	3287	98.2	1962	3412	102.0
16L	40	4000	N	17° x 17°	3810	32563	104.7	3916	33469	107.7	4065	34742	111.4
			M	28° x 28°	3847	13558	105.8	3954	13935	108.7	4105	14467	112.8
			MF	61° x 63°	3755	4033	103.3	3860	4146	106.1	4007	4304	110.1
			WF	79° x 83°	3817	3075	105.0	3923	3160	107.9	4073	3281	112.0
			HF	54° x 22°	3443	6472	94.7	3539	6652	97.3	3674	6906	101.1
			VF	22° x 54°	3394	6441	93.3	3489	6622	95.9	3622	6874	99.6

CRI Lumen Multiplier	
CCT	80 CRI
3000K	0.9408
4000K	0.9067

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STATIC WHITE ARCHITECTURAL FLOOD

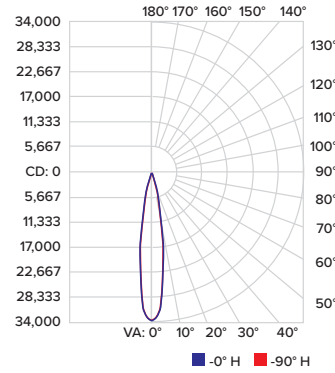
PHOTOMETRY

KFL1-16L-40-4K7-N

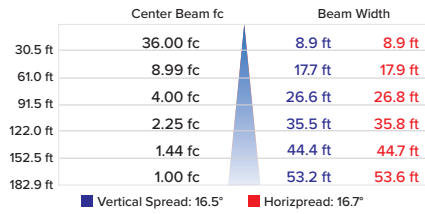
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	3916
Watts	36.37
Efficacy	107.7
Beam Angles (H x V)	17° x 17°
Center Beam Candlepower	33469

POLAR CANDELA DISTRIBUTION



ILLUMINANCE AT A DISTANCE



LUMENS PER ZONE

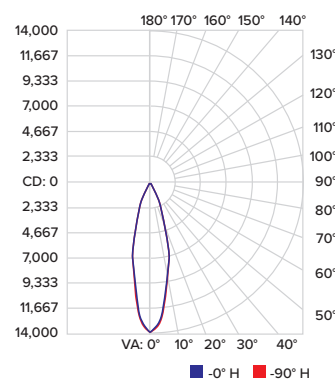
Zone	Lumens	% Total
0-10	2,033.40	51.60%
10-20	1,324.20	33.60%
20-30	282.7	7.20%
30-40	115.5	2.90%
40-50	74.1	1.90%
50-60	55	1.40%
60-70	35.9	0.90%
70-80	15.7	0.40%
80-90	2.8	0.10%

KFL1-16L-40-4K7-M

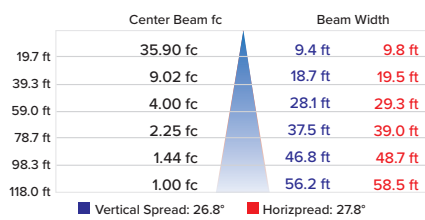
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	3954
Watts	36.37
Efficacy	108.7
Beam Angles (H x V)	27.8° x 26.8°
Center Beam Candlepower	13935

POLAR CANDELA DISTRIBUTION



ILLUMINANCE AT A DISTANCE



LUMENS PER ZONE

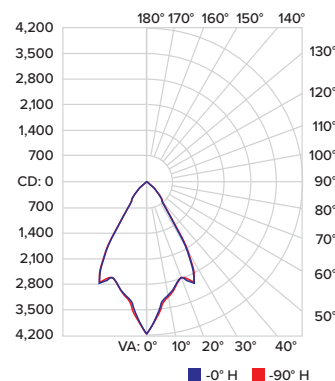
Zone	Lumens	% Total
0-10	1,050.30	26.50%
10-20	1,732.80	43.70%
20-30	841.6	21.20%
30-40	193.1	4.90%
40-50	66.1	1.70%
50-60	40.1	1.00%
60-70	25.3	0.60%
70-80	11.9	0.30%
80-90	2.7	0.10%

KFL1-16L-40-4K7-MF

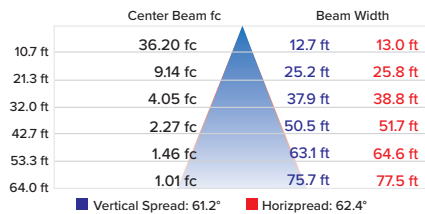
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	3860
Watts	36.37
Efficacy	106.1
Beam Angles (H x V)	62.4° x 61.2°
Center Beam Candlepower	4146

POLAR CANDELA DISTRIBUTION



ILLUMINANCE AT A DISTANCE



LUMENS PER ZONE

Zone	Lumens	% Total
0-10	333	8.60%
10-20	838.6	21.70%
20-30	1,335.00	34.60%
30-40	815.1	21.10%
40-50	296.9	7.70%
50-60	130.3	3.40%
60-70	76	2.00%
70-80	31.2	0.80%
80-90	7.2	0.20%

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STATIC WHITE ARCHITECTURAL FLOOD

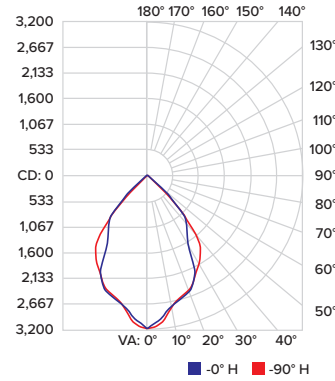
PHOTOMETRY CONTINUED

KFL1-16L-40-4K7-WF

LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	3923
Watts	36.37
Efficacy	107.9
Beam Angles (H x V)	78.7° x 63.7°
Center Beam Candlepower	3160

POLAR CANDELA DISTRIBUTION



ILLUMINANCE AT A DISTANCE

	Center Beam fc	Beam Width	
9.3 ft	36.50 fc	11.6 ft	15.2 ft
18.7 ft	9.04 fc	23.2 ft	30.7 ft
28.0 ft	4.03 fc	34.8 ft	45.9 ft
37.3 ft	2.27 fc	46.4 ft	61.2 ft
46.7 ft	1.45 fc	58.1 ft	76.6 ft
56.0 ft	1.01 fc	69.6 ft	91.8 ft

■ Vertical Spread: 63.7° ■ Horizpread: 78.7°

LUMENS PER ZONE

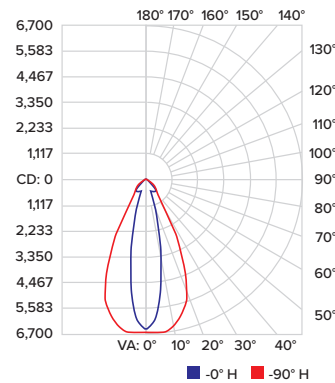
Zone	Lumens	% Total
0-10	283.2	7.20%
10-20	734.5	18.70%
20-30	1,032.60	26.30%
30-40	1,057.70	26.90%
40-50	653	16.60%
50-60	116.5	3.00%
60-70	28.7	0.70%
70-80	14.6	0.40%
80-90	5.7	0.10%

KFL1-16L-40-4K7-HF

LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	3539
Watts	36.37
Efficacy	97.3
Beam Angles (H x V)	54° x 22°
Center Beam Candlepower	6652

POLAR CANDELA DISTRIBUTION



ILLUMINANCE AT A DISTANCE

	Center Beam fc	Beam Width	
13.7 ft	35.30 fc	5.4 ft	14.1 ft
27.3 ft	8.89 fc	10.8 ft	28.1 ft
41.0 ft	3.94 fc	16.2 ft	42.2 ft
54.7 ft	2.21 fc	21.7 ft	56.3 ft
68.3 ft	1.42 fc	27.0 ft	70.3 ft
82.0 ft	0.99 fc	32.5 ft	84.4 ft

■ Vertical Spread: 22.4° ■ Horizpread: 54.5°

LUMENS PER ZONE

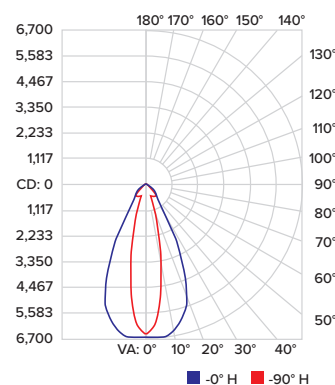
Zone	Lumens	% Total
0-10	556.2	15.70%
10-20	973.1	27.40%
20-30	632.5	17.80%
30-40	484.2	13.70%
40-50	450.5	12.70%
50-60	272.9	7.70%
60-70	124.3	3.50%
70-80	44.7	1.30%
80-90	8.4	0.20%

KFL1-16L-40-4K7-VF

LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	3489
Watts	36.37
Efficacy	95.9
Beam Angles (H x V)	22° x 54°
Center Beam Candlepower	6622

POLAR CANDELA DISTRIBUTION



ILLUMINANCE AT A DISTANCE

	Center Beam fc	Beam Width	
13.3 ft	37.10 fc	13.8 ft	5.3 ft
26.7 ft	9.22 fc	27.6 ft	10.6 ft
40.0 ft	4.11 fc	41.4 ft	15.8 ft
53.3 ft	2.31 fc	55.2 ft	21.1 ft
66.7 ft	1.48 fc	69.1 ft	26.4 ft
80.0 ft	1.03 fc	82.8 ft	31.6 ft

■ Vertical Spread: 54.7° ■ Horizpread: 22.4°

LUMENS PER ZONE

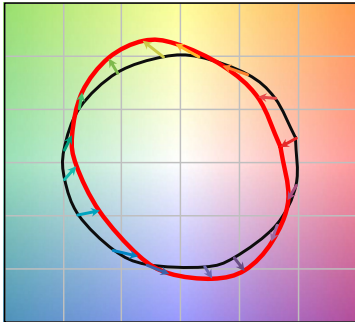
Zone	Lumens	% Total
0-10	549.7	15.70%
10-20	968.2	27.70%
20-30	633.7	18.10%
30-40	492	14.10%
40-50	436.8	12.50%
50-60	242.2	6.90%
60-70	119.6	3.40%
70-80	44.5	1.30%
80-90	8.7	0.20%

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STATIC WHITE ARCHITECTURAL FLOOD

TM-30 DATA

COLOR VECTOR GRAPHIC

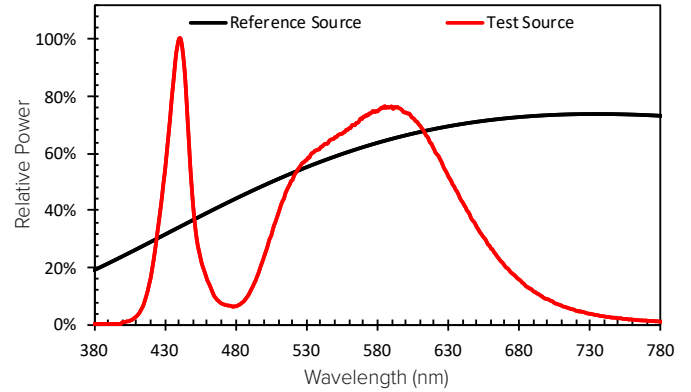


— Reference Illuminant — Test Source

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



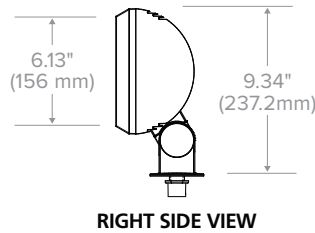
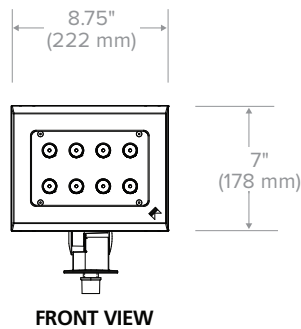
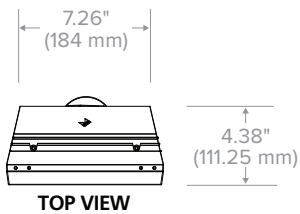
ELECTRICAL DATA

Light Engine	System Watts	Drive Current	Electrical								Min. Power Factor	Max THD (%)	Dimming				
			Line Voltage		Amps AC								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
8L	20	700 mA	120-480	50/60	0.17	0.10	0.08	0.07	0.06	0.04	>0.9	20	10% to 100%	0mA	1mA	0V	10V
16L	40	700 mA			0.33	0.19	0.17	0.14	0.12	0.08							

TM-21 Lifetime Calculation - Projected Lumen Maintenance (25°C / 77°C)						
Hours	0	25,000	36,000	50,000	100,000	Reported L70
Projected Lumen Maintenance	100%	97.94%	96.78%	95.33%	90.33%	> 60,000

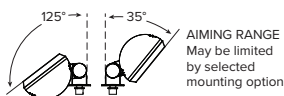
CRI Multiplier	
CCT	Multiplier
3000K	0.9119
4000K	0.8941
5000K	0.8625

DIMENSIONS

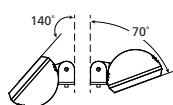


AIMING INFORMATION

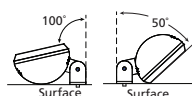
THREADED KNUCKLE



YOKE AIMING RANGE



YOKE AIMING RANGE WITH GROUND RESTRICTIONS



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STATIC WHITE ARCHITECTURAL FLOOD

PRODUCT EXCEPTIONS & DETAILS

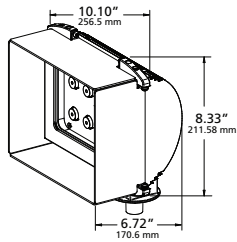
OPTICAL OPTIONS

BARN DOORS (BD)

- Formed 3/32" thick aluminum. Each door is hinged to a cast, low copper (<0.6% Cu) aluminum frame, and locks by set screws. Doors are individually removable. Barn Door assembly mounts to predrilled door frame holes. Assembly will be painted to match fixture housing.

CAUTION:

- Not recommended for ground mounted fixtures in vandal prone areas.

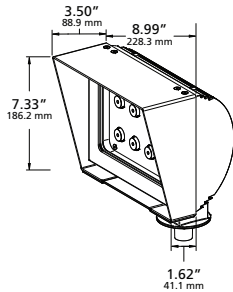


HALF GLARE SHIELD (HS)

- Formed 3/32" thick aluminum. Mounts to predrilled door frame holes. Can be mounted along the top or bottom of the fixture to shield the lamp and lens from view. Assembly will be painted to match fixture housing.

CAUTION:

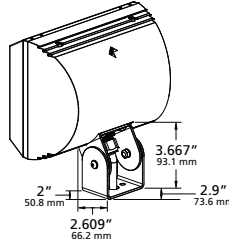
- Not recommended for ground mounted fixtures in vandal prone areas.



MOUNTING OPTIONS

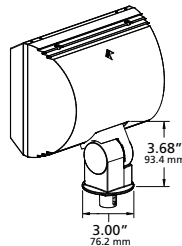
ARCHITECTURAL YOKE (Y)

- Architectural Yoke Mount used for surface mounting applications. Secured to surface using two 1/4" bolts.
- Yoke is stainless steel material with powder coating finish.



THREADED KNUCKLE (K)

- Threaded Knuckle is die-cast aluminum with integral locking teeth providing 5° adjustment intervals. Stainless steel allen-head screw with spring locking washer and 1/2" NPSM. Clear anodized prior to chromate conversion coating for added corrosion resistance.
- Threaded Knuckle mounting used in conjunction with mounting accessories listed on page 1.



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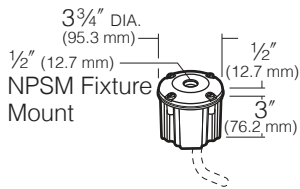
STATIC WHITE ARCHITECTURAL FLOOD

PRODUCT EXCEPTIONS & DETAILS CONTINUED

MOUNTING ACCESSORIES

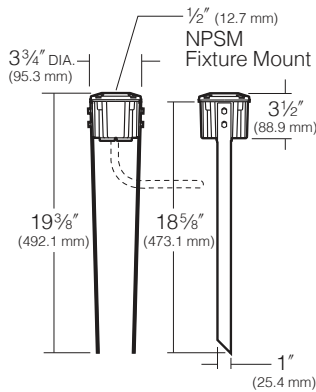
BRASS IN-GRADE ARCHITECTURAL JUNCTION BOX (THREADED KNUCKLE MOUNT ONLY)

- **JBR-2** (2) 1/2" NPT in bottom
- **JBR-3.** (2) 3/4" NPT in bottom
- **JBR21** (2) 1/2" NPT in sides (2) 1/2" NPT in bottom
- **JBR24** (4) 1/2" NPT in sides (2) 1/2" NPT in bottom
- Die-cast brass with 1/2" NPSM fixture mount and die-cast cover. Internal set screw provided for locking position. 21 cu in. internal volume. NOTE: All side taps provided with plugs. Creates a flush-mounted appearance. May be cast in concrete for increased stability. **CAUTION:** Fixture stem and swivel must not contact soil or standing water. Provide drainage away from junction box.



BRASS IN-GRADE STAKED JUNCTION BOX (THREADED KNUCKLE MOUNT ONLY)

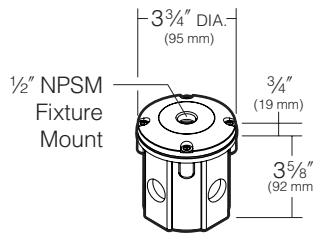
- **JBR-30** (2) 1/2" NPT in bottom, (2) 19" long stakes Brass In-Grade Staked Junction Box
- **JBR-32.** (2) 19" long stakes
- Die-cast brass with 1/2" NPSM fixture mount and die-cast cover. Internal set screw provided for locking position. 21 cu in. internal volume. Creates a flush-mounted appearance. May be cast in concrete for increased stability. **CAUTION:** To assure a rigid installation, Staked Junction Box must be set in concrete (by others). Fixture stem and swivel must not contact soil or standing water. Provide drainage away from junction box.



COMPOSITE IN-GRADE ARCHITECTURAL JUNCTION BOX

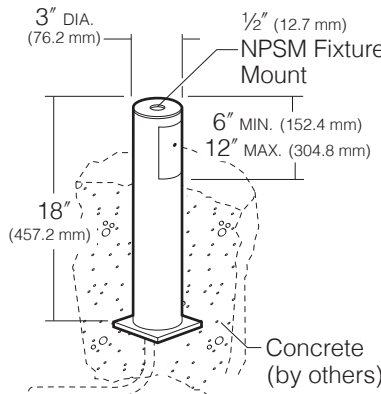
- **JBR-4** (2) 1/2" NPT knock-outs in bottom (4) 1/2" NPT knock-outs on sides at 90°
- **JBR-5** Same as above but with brass cover
- Composite box with 1/2" NPSM fixture mount and composite cover. Internal set screw provided for locking position. 19 cu in. internal volume.

NOTE: May also be used to hard mount low voltage fixtures.
CAUTION: Fixture stem and swivel must not contact soil or standing water. Provide drainage away from junction box.



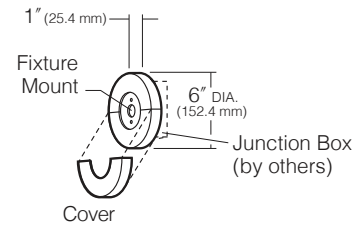
STANCHION MOUNT (SM18) (THREADED KNUCKLE MOUNT ONLY)

- 3" O.D. by .188" wall cast low copper (<0.6% Cu) aluminum with 1/2" NPSM fixture mount and hand hole with flush cover. Internal set screw fixture lock accessible through hand hole. Internal ground lug supplied with installed lead. **CAUTION:** To assure a rigid installation, stanchion must be set in concrete (by others).



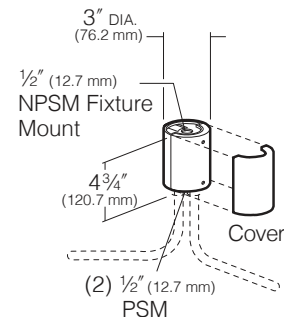
WALL OR CEILING MOUNT (WM) (THREADED KNUCKLE MOUNT ONLY)

- Electro zinc steel mounting plate adapts to standard 4" square or octagonal Junction Boxes. Fixture mounts to cast low copper (<0.6% Cu) aluminum upper cover which attaches to mounting plate. Lower cover half provides splice access. Dielectric sealing compound provided for wall interface.



ARCHITECTURAL JUNCTION BOX (JB1) (THREADED KNUCKLE MOUNT ONLY)

- Die-cast, low copper (<0.6% Cu) anodized aluminum with 1/2" NPSM fixture mount. Internal set screw provided for locking position. Two 1/2" NPSM in bottom, 17 cu in. internal volume. **CAUTION:** Junction Box must be installed high enough to avoid contact with soil or standing water.



KFL1

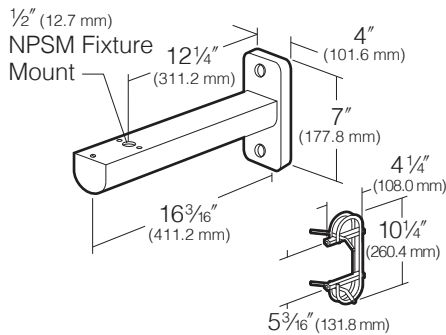
STATIC WHITE ARCHITECTURAL FLOOD

PRODUCT EXCEPTIONS & DETAILS (CONTINUED)

MOUNTING ACCESSORIES

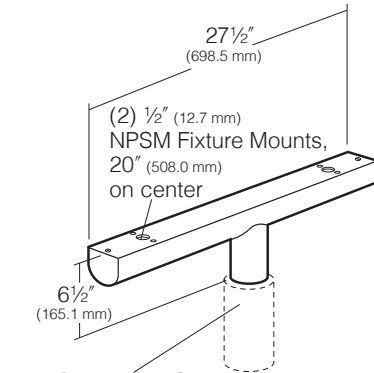
**WALL MOUNT (WM1)
(THREADED KNUCKLE MOUNT ONLY)**

- Extruded aluminum arm with a removable end cap for wiring access. Arm is welded to a cast aluminum plate with two 1/2" dia. mounting holes. Optional Wall Embedment Bracket (WEB) provides 3/8-16 bolt receptacles welded in a galvanized re-bar cage for casting into poured-in-place concrete walls. Bolt receptacles receive fixture attachment bolts. Component EPA: 0.3.



**TWIN MOUNT (TM2)
(THREADED KNUCKLE MOUNT ONLY)**

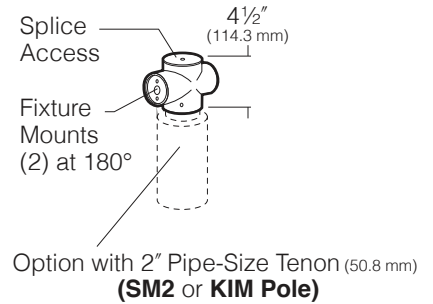
- Extruded aluminum arm. Internal set screw fixture locks. Can be mounted on a SM2, SMT, or Steel Kim Pole with steel 2" pipe-size tenon (2-3/8" O.D. x 3-1/2" min. length). Removable end caps for wiring access. CAUTION: Approved for mounting to poles with steel tenons only. Component EPA: 0.6.



Option with Steel 2" Pipe-Size Tenon (50.8 mm) (SM2, SMT, or KIM Pole)

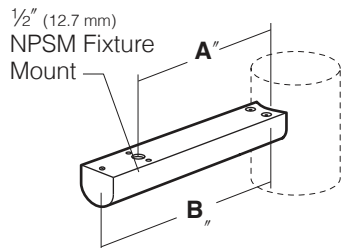
**TWIN POST TOP MOUNT (PT2)
(YOKE MOUNT ONLY)**

- Cast aluminum mount for pole or other mounting option with 2" pipe-size tenon (2-3/8" O.D. x 3-1/2" minimum length). Fixture attaches with concealed internal studs, mounting is with 1/4-20 allen set screws. Top cap provides splice access. NOTE: Not for use with SMT, SPT, WM2, M2B, or M3E options. Component EPA: 0.1.



**SIDE POLE MOUNT (SPM-X)
(THREADED KNUCKLE MOUNT ONLY)**

- Available for Round and Square Poles. Extruded aluminum arm. Internal set screw fixture lock. Removable end cap for wiring access. For use with other Kim Site/Roadway Luminaires as an additional mid-pole floodlight. X in Side Pole Mount Cat. No. indicates 3", 3-1/2", 4", 5" or 6" pole dia. Example: SPM-4/BL is for 4" round pole with Black finish. For square poles, omit -X. NOTE: Field drilling of Poles is required. Component EPA: 0.3.



A 11 1/2" (292.1 mm) For Round Poles
12" (304.8 mm) For Square Poles

B 15 3/8" (390.5 mm) For Round Poles
15 7/8" (403.2 mm) For Square Poles

**POST TOP MOUNT (PT)
(YOKE MOUNT ONLY)**

- Cast aluminum mount for pole or other mounting option with 2" pipe-size tenon (2-3/8" O.D. x 3-1/2" minimum length). Fixture attaches with concealed internal studs, mounting is with 1/4-20 allen set screws. Top cap provides splice access. Component EPA: 0.7.

