

KFL2

STATIC WHITE ARCHITECTURAL FLOOD

**Architectural
FLOODLIGHT COLLECTION**

FEATURES

- Lumen range from 5,000 to 7,000 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
- Optional factory programmed dimming profile

ELECTRICAL (CONTINUED)

- 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	4,491–7,644
Wattage Range	45–70
Efficacy Range (LPW)	94.8–124.5
Reported Life (Hours)	L70/60,000
Weight	12 lbs 5.44 kg
EPA Front View / Side View	.75 / .27

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ORDERING GUIDE

Example: KFL2-24L-70-3K7-MF-UNV-K-GTT-BD

CATALOG #

HOUSING

KFL2		LED Engine		CCT/CRI		Beam Spread		Voltage		Mounting		Color	
KFL2	Architectural Floodlight	24L-45	45W, 5,000 lm	3K7	3000K, 70 CRI	N	Narrow	UNV	120-277V	Y	Architectural Yoke	BLS	Black Gloss Smooth
		24L-70	70W, 7,000 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 4 & 5 for additional detail on mounting options

KFL2

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
24L	45	5,000 lm	N	17° x 17°	4944	39687	111.3	5082	40795	114.4	5276	42352	118.6
			M	26° x 26°	5028	18739	113.2	5168	19261	116.3	5365	19995	120.3
			MF	61° x 62°	4645	5414	104.5	4774	5564	107.4	4956	5776	111.7
			WF	81° x 78°	5186	3888	116.7	5331	3997	120.0	5534	4149	124.5
			HF	52° x 21°	4527	8364	101.9	4654	8599	104.7	4831	8926	108.7
			VF	21° x 52°	4491	8389	101.1	4616	8622	103.9	4792	8951	108.4
24L	70	7,000 lm	N	17° x 17°	7045	56552	104.4	7241	58125	107.3	7517	60341	111.4
			M	26° x 26°	7163	26700	106.1	7363	27445	109.1	7644	28489	113.2
			MF	61° x 62°	6617	7720	98.0	6802	7936	100.8	7061	8238	104.6
			WF	81° x 78°	7389	5540	109.5	7595	5694	112.5	7884	5911	116.8
			HF	52° x 21°	6450	11917	95.6	6630	12250	98.2	6883	12717	102.0
			VF	21° x 52°	6398	11949	94.8	6577	12285	97.4	6827	12752	101.1

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

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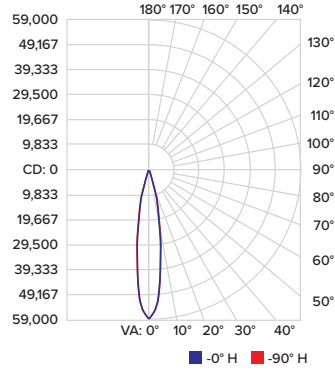
PHOTOMETRY

KFL2-24L-70-4K7-N

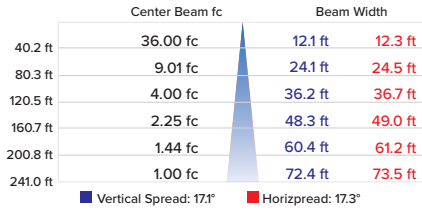
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	3916
Watts	36.37
Efficacy	107.7
Beam Angles (H x V)	16.7° x 16.5°
Center Beam Candlepower	33469

POLAR CANDELA DISTRIBUTION



ILLUMINANCE AT A DISTANCE



LUMENS PER ZONE

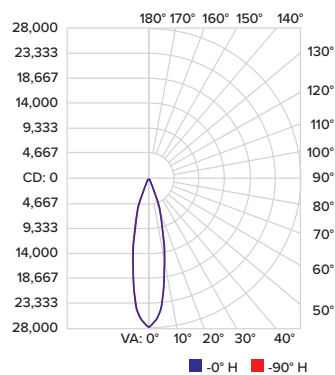
Zone	Lumens	% Total
0-10	3,649.4	50.10%
43758	2,448.3	33.60%
20-30	572.6	7.90%
30-40	245.7	3.40%
40-50	149.7	2.10%
50-60	110.2	1.50%
60-70	70.0	1.00%
70-80	31.1	0.40%
80-90	5.0	0.10%

KFL2-24L-70-4K7-M

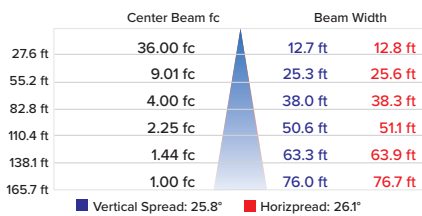
LUMINAIRE DATA

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

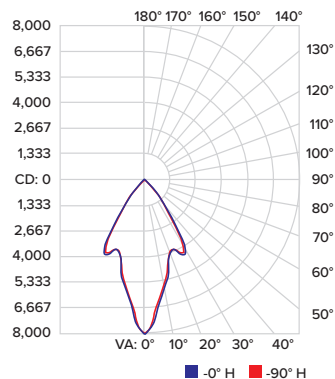
Zone	Lumens	% Total
0-10	2,066.6	28.0%
10-20	3,175.5	43.0%
20-30	1,427.3	19.3%
30-40	371.3	5.0%
40-50	149.0	2.0%
50-60	102.2	1.4%
60-70	59.4	0.8%
70-80	25.7	0.3%
80-90	4.7	0.1%

KFL2-24L-70-4K7-MF

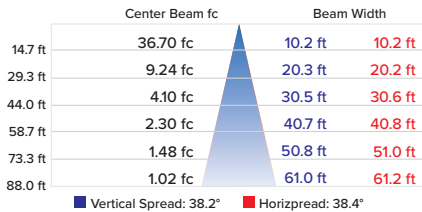
LUMINAIRE DATA

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	606.2	8.9%
10-20	1,334.1	19.6%
20-30	2,010.0	29.5%
30-40	1,676.4	24.6%
40-50	660.7	9.7%
50-60	270.1	4.0%
60-70	165.1	2.4%
70-80	73.0	1.1%
80-90	13.7	0.2%

KFL2

STATIC WHITE ARCHITECTURAL FLOOD

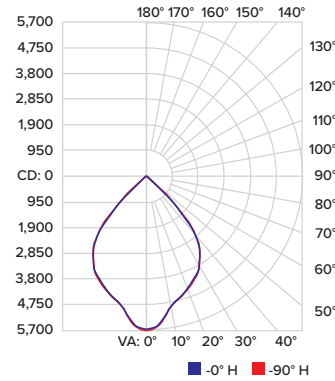
PHOTOMETRY CONTINUED

KFL2-24L-70-4K7-WF

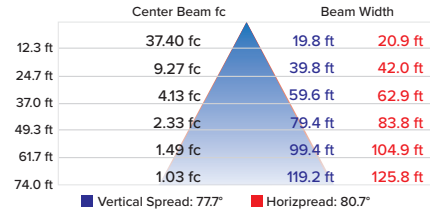
LUMINAIRE DATA

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



LUMENS PER ZONE

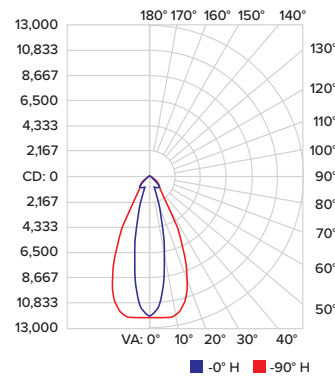
Zone	Lumens	% Total
0-10	509.1	6.7%
10-20	1,315.9	17.3%
20-30	1,891.8	24.9%
30-40	2,115.4	27.8%
40-50	1,418.6	18.7%
50-60	274.2	3.6%
60-70	50.8	0.7%
70-80	20.9	0.3%
80-90	5.8	0.1%

KFL2-24L-70-4K7-HF

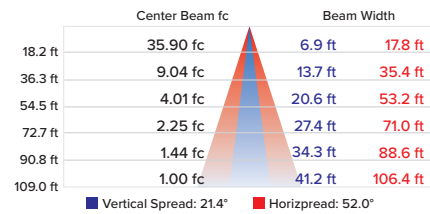
LUMINAIRE DATA

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



LUMENS PER ZONE

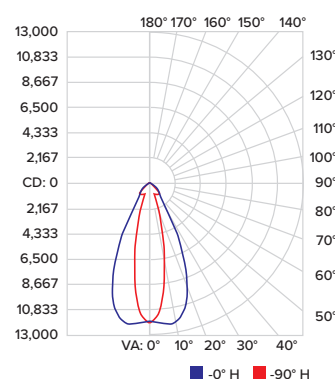
Zone	Lumens	% Total
0-10	1,029.5	15.5%
10-20	1,831.4	27.6%
20-30	1,149.4	17.3%
30-40	821.8	12.4%
40-50	833.7	12.5%
50-60	610.2	9.2%
60-70	263.2	4.0%
70-80	90.6	1.4%
80-90	14.5	0.2%

KFL2-24L-70-4K7-VF

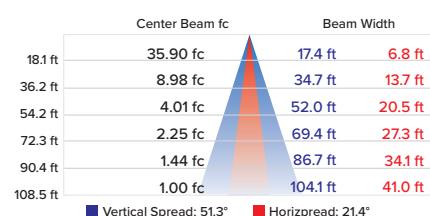
LUMINAIRE DATA

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



LUMENS PER ZONE

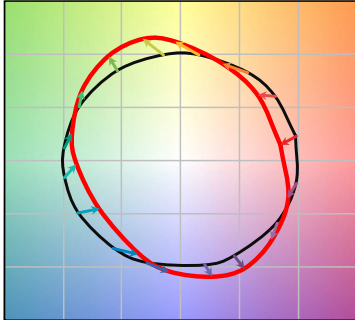
Zone	Lumens	% Total
0-10	1,030.5	15.6%
10-20	1,834.5	27.8%
20-30	1,111.3	16.9%
30-40	808.0	12.3%
40-50	829.7	12.6%
50-60	612.3	9.3%
60-70	261.8	4.0%
70-80	88.4	1.3%
80-90	14.4	0.2%

KFL2

STATIC WHITE ARCHITECTURAL FLOOD

TM-30 DATA

COLOR VECTOR GRAPHIC

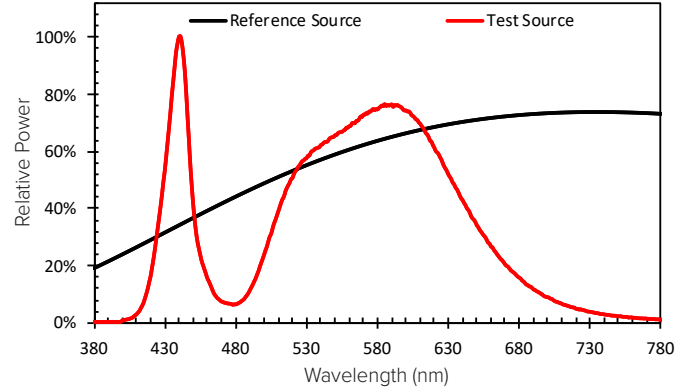


— Reference Illuminant — Test Source

TEST SOURCE

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

SPECTRAL POWER DISTRIBUTION COMPARISON



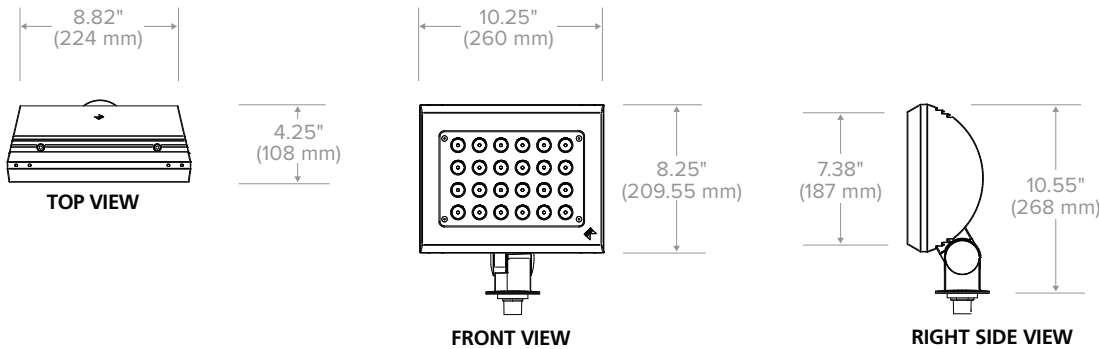
ELECTRICAL DATA

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
24L	45	550 mA	120-480	50/60	0.38	0.22	0.19	0.16	0.13	0.09	>0.9	20	10% to 100%	0mA	1mA	0V	10V
70	850 mA	0.58			0.34	0.29	0.25	0.20	0.15								

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%	97.21%	95.78%	93.98%	87.83%	> 60,000

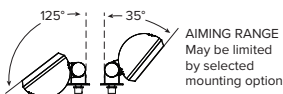
CRI Multiplier	
CCT	Multiplier
3000K	0.9119
4000K	0.8941
5000K	0.8625

DIMENSIONS

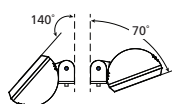


AIMING INFORMATION

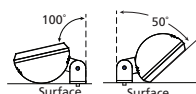
THREADED KNUCKLE



YOKE AIMING RANGE



YOKE AIMING RANGE WITH GROUND RESTRICTIONS



KFL2

STATIC WHITE ARCHITECTURAL FLOOD

PRODUCT EXCEPTIONS & DETAILS

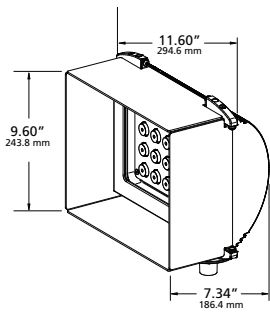
OPTICAL OPTIONS

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:

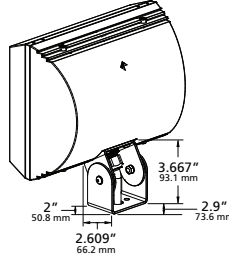
- Not recommended for ground mounted fixtures in vandal prone areas.



MOUNTING OPTIONS

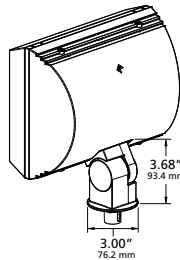
ARCHITECTURAL YOKE (Y)

- 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.

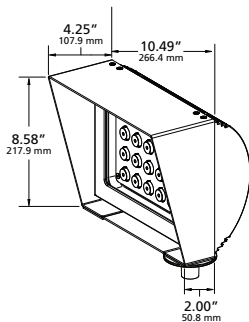


HALF GLARE SHIELD (HS)

- 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.



KFL2

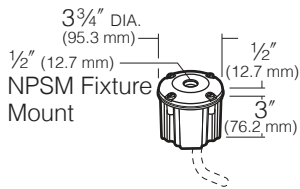
STATIC WHITE ARCHITECTURAL FLOOD

PRODUCT EXCEPTIONS & DETAILS CONTINUED

MOUNTING ACCESSORIES

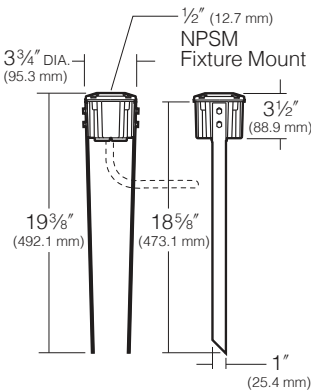
BRASS IN-GRADE ARCHITECTURAL JUNCTION BOX (THREADED KNUCKLE MOUNT ONLY)

- **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)

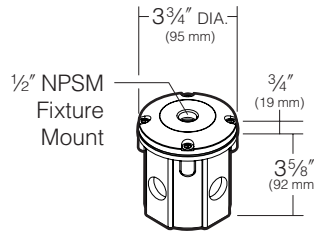
- **JBR-30** (2) 1/2" NPT in bottom, (2) 19" long stakes Brass In-Grade Staked Junction Box
- **JBR-32.** (2) 19" long stakes
- Die-cast brass with 1/2" NPSM fixture mount and die-cast cover. Internal set screw provided for locking position. 21 cu in. internal volume. Creates a flush-mounted appearance. 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

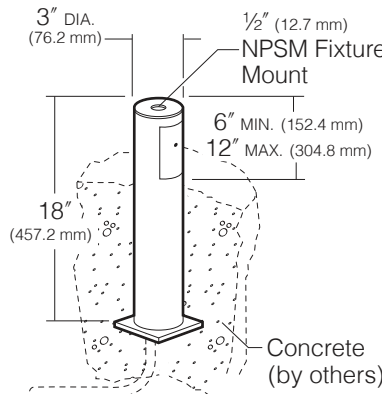
- **JBR-4** (2) 1/2" NPT knock-outs in bottom (4) 1/2" NPT knock-outs on sides at 90°
- **JBR-5** Same as above but with brass cover
- Composite box with 1/2" NPSM fixture mount and composite cover. Internal set screw provided for locking position. 19 cu in. internal volume.

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.



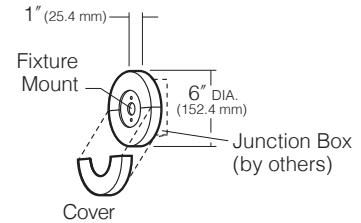
STANCHION MOUNT (SM18) (THREADED KNUCKLE MOUNT ONLY)

- 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).



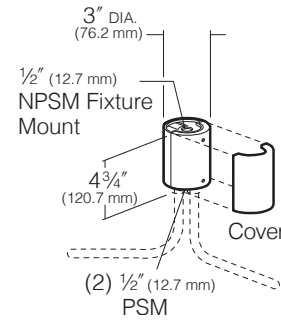
WALL OR CEILING MOUNT (WM) (THREADED KNUCKLE MOUNT ONLY)

- 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.



KFL2

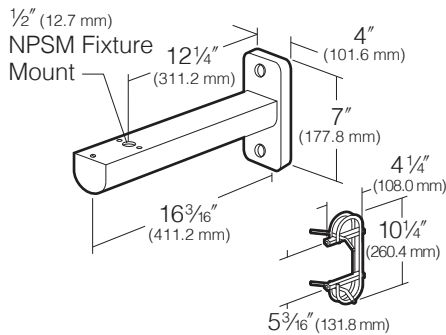
STATIC WHITE ARCHITECTURAL FLOOD

PRODUCT EXCEPTIONS & DETAILS CONTINUED

MOUNTING ACCESSORIES

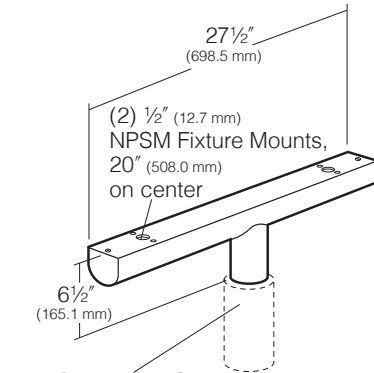
**WALL MOUNT (WM1)
(THREADED KNUCKLE MOUNT ONLY)**

- 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)**

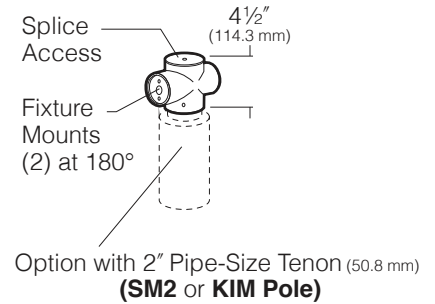
- Extruded aluminum arm. Internal set screw fixture locks. Can be mounted on a SM2, SMT, or Steel Kim Pole with steel 2" pipe-size tenon (2-3/8" O.D. x 3-1/2" min. length). Removable end caps for wiring access. CAUTION: Approved for mounting to poles with steel tenons only. Component EPA: 0.6.



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

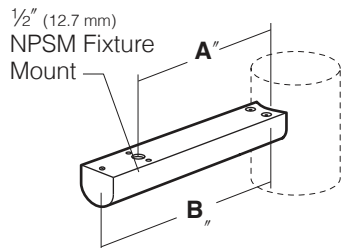
**TWIN POST TOP MOUNT (PT2)
(YOKE MOUNT ONLY)**

- 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.

