

FEATURES

- Integral Motion Sensor
- Staggered twin mounting
- ANSI C136.31-2010 4G Rated
- IES Type II, III and IV distributions
- 3000K , 4000K, 5000K CCT
- Integral thermal protection



3000K and warmer CCTs only

CONTROL TECHNOLOGY

LIGHT GRID⁺

SPECIFICATIONS

CONSTRUCTION

- Housing shroud is made of fabricated 5052-H32 aluminum alloy with a rear mounting interface that is made of fabricated 304 stainless steel
- Housing mounting interface is a stamped silicone gasket
- Luminaire housing is free of any visible heat fins, hardware or fasteners
- Bracketry and hardware is made of stainless steel
- Base is made of cast aluminum #356 alloy and heat treated to a T-6 condition
- Shaft is extruded aluminum 6061 alloy and heat treated to a T-6 condition
- Anchor bolts are hot dip galvanized steel. Eight galvanized hex nuts and flat washers, and a bolt circle template are provided. Anchor bolt for poles are 3/4" x 24" x 3"
- Luminaire finish 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 meets the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance

LED/OPTICS

- LEDs are mounted to a metal printed circuit board assembly (MCPCB) with a uniform conformal coating over the panel surface and electrical features
- Optical lenses is made of clear injection molded PMMA acrylic

LED/OPTICS (CONTINUED)

- Each MCPCB and optic are sealed to an extruded 6063-T6 aluminum alloy heat spreader and sealed with a continuous one piece injection molded silicone rubber gasket. IP66
- Patent Pending design of optical array is independently shielding each LED optic across the length of the aperture
- Optical surfaces are painted white unless the optional fixture finish (FO) or matte black finish (MO) is selected
- Optional matte black finish optics (MO) are required to meet UO classification with zero percent uplight
- Optional fixture finish optical surfaces (FO) do not exceed BUG ratings of the standard white finish and will be greater than or equal to the delivered lumens of the optional matte black optical surface finish (MO)

INSTALLATION

- Integral pole mount luminaires require assembly of fixture(s) to the pole, mounting hardware, anchor bolts and anchor bolt template is included. See page 6 for additional considerations specific to the integral pole
- Tenon mount luminaires require assembly of fixture(s) to the tenon adapter, mounting hardware is included. Tenon adapter secures to the tenon with eight 5/16-18 stainless steel set screws
- Side mount luminaires are supplied with hardware compatible with AAL mountings.
- Twin mounted staggered height fixtures are configured separately
- Service access to the optical array and driver assembly is via a tool-less internal latch and have an audible click.

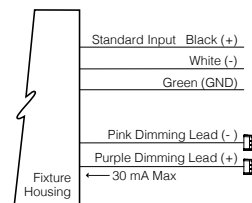
KICK™



Kick Medium

INSTALLATION (CONTINUED)

- Optical array has to hang freely in an open service position for inspection of internal wire connections. Once in service position, the optical array is able to be removed for service by lifting the assembly up off the rear hinge and disconnecting the wiring plugs.
 - Driver assembly is mounted to a prewired internal tray with quick disconnects for removal
- ### ELECTRICAL
- Drivers are in direct contact with the aluminum housing across the entire surface area of the widest face for maximum thermal transfer
 - Luminaires have integral surge protection that is 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. Surge protection device is wired in series
 - Drivers are U.L. recognized



continued on page 3

KEY DATA	
Lumen Range	7,744–18,763
Wattage Range	87–173
Efficacy Range (LPW)	79–119
Weight	20 lbs 9.07 kg
EPA	1.4

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ORDERING GUIDE

Example: K51-T2-FO-9040-SF-MCPCR-347-PS412-125-BLT

CATALOG #	
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Model - 5" Wide Luminaire (Choose One)	Optical Distribution (Choose One)	Optics Finish (Choose One)	Light Engine ¹
K51 Single fixture	T2 IES Type II	MO Optics in Matte Black finish	90AM Amber LED, 580-590nm, 76 watts
K52 Two fixtures 180° apart	T3 IES Type III	FO Optics in fixture finish	9030 3000K CCT, CRI 70, 87 watts
K53 Three fixtures 90° apart	T4 IES Type IV	WO White Optical Surface	9040 4000K CCT, CRI 70, 87 watts
K54 Four fixtures 90° apart			9050 3000K CCT, CRI 70, 87 watts
			12030 3000K CCT, CRI 70, 122 watts
			12040 4000K CCT, CRI 70, 122 watts
			12050 5000K CCT, CRI 70, 122 watts
			18030 3000K CCT, CRI 70, 174 watts
			18040 4000K CCT, CRI 70, 174 watts
			18050 5000K CCT, CRI 70, 174 watts
			5-Step MacAdam Ellipse Binning is standard
			Consult Factory for 3-Step MacAdam Ellipse Binning
			Consult Factory regarding availability of the following options
			27K8 2700K, CRI 80
			27K9 2700K, CRI 90
			3K8 3000K, CRI 80
			3K9 3000K, CRI 90
			35K8 3500K, CRI 80
			35K9 3500K, CRI 90
			4K8 4000K, CRI 80
			4K9 4000K, CRI 90
			5K8 5000K, CRI 80
			5K9 5000K, CRI 90

Fuse (Optional)	Controls (Optional)	Voltage	Mounting Method (Choose One)	Fixture Finish
SF 120, 277, 347 Volt input	MCPCR Multi-Channel 7-Pin Photocell Receptacle	WIRED 120-277 120-277 VAC input	P Pole By AAL	<u>Standard Color</u>
DF 208, 240, 480 Volt input	WIR LightGRID+ connectivity	347 347 VAC input	SMK Mounts to the side of a square pole	BLS Black Gloss Smooth
	WIRSC LightGRID+ motion sensore	480 480 VAC input	TA23 Slips over 2-3/8" x 4" long tenon	BLT Black Matte Textured
	SCP Sensor Control Programmable (Motion Sensor + Photocell) ²		WMK Wall Mount	DBS Dark Bronze Gloss Smooth
	SCPREMOTE Handheld Commissioning Tool (Need 1 total, if fixtures have SCP)			DBT Dark Bronze Matte Textured
	NXOFM-1R1D-UNV NX 7-Pin Twist-Lock® with NX Networked Wireless Radio, Integral Automatic Dimming Photocell, Integral Single Pole Relay with Dimming, and Bluetooth Programming			GTT Graphite Matte Texture
				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
				<u>Color Options</u>
				CC Custom Color ³
				CLA Clear Anodized Finish (Clear protective undercoat for added protection in coastal or other harsh environments) ⁴

Notes:

- 580-590nm monochromatic amber and or custom lumen package available by request
- Handheld commissioning tool is required to separately configure or adjust any number of SCP sensors
- Consult factory for custom color finish
- Recommended for harsh environment, salt spray 3,000 hours rated
- Stainless Steel pole available upon request

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ORDERING GUIDE (CONTINUED)

Example: PS514-125-TS8-GFI-SBC-ABT

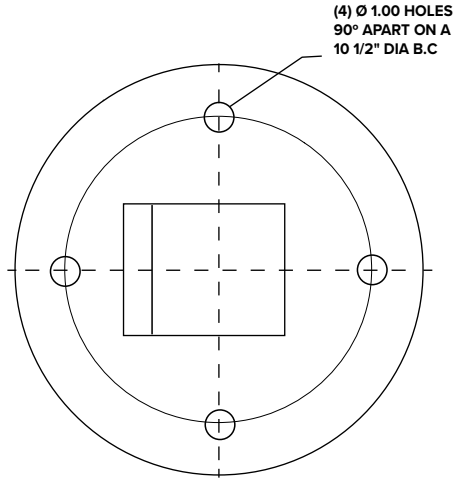
POLE BY AAL- INTEGRAL POLE - PS5-SQUARE STRAIGHT ALUMINUM - 5" DIAMETER, .188" WALL THICKNESS, 10.5" BOLT CIRCLE ⁵

Aluminum Pole By AAL	Mounting Style	Pole Diameter	Pole Length (Choose One)	Pole Shaft Thickness
P Pole By AAL ⁵	S Square	5 5" O.D.	10 10' Pole Height 12 12' Pole Height 14 14' Pole Height 16 16' Pole Height 18 18' Pole Height 20 20' Pole Height	188 0.188" Wall

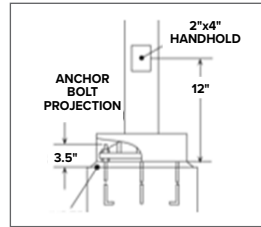
Twin Mount Staggered (Optional)	Receptacle Options (Optional)	Base Cover	Anchor Bolts
TS8 8' Luminaire Height TS10 10' Luminaire Height TS12 12' Luminaire Height TS14 14' Luminaire Height TS16 16' Luminaire Height TS18 18' Luminaire Height	GFI GFCI Receptacle DRB Duplex Receptacle RBC Receptacle Box Cover	SBC Standard Base Cover	* Option Not Required ABT AB&T

ANCHOR BOLTS & TEMPLATES

MATERIAL PS5- SQUARE STRAIGHT ALUMINUM - 5" DIAMETER POLE



Anchor Bolts for PS5 Poles 5"ODx.188" Wall Thickness		
TAB36M38		1" X 36" X 4"
Anchor Bolt Template for PS5 Pole		
A90090		
Bolt Diameter	Bolt Circle Diameter	Anchor Bolt Projection
1"	10.5"	3.5"



SPECIFICATIONS (CONTINUED)

MODEL	HEIGHT OVERALL	POLE	Shaft Section	MatERial	WT	Maximum allowable epa (mph)									
						85	90	100	105	110	120	130	140	145	150
K5X-PS510-188	10' 9" / 3.28m	10'	5" SQ x .188"	Aluminum	61 lbs	25.0	25.0	23.0	20.5	18.5	5.0	4.0	10.1	9.1	8.3
K5X-PS512-188	12' 9" / 3.89m	12'	5" SQ x .188"	Aluminum	69 lbs	25.0	22.5	17.8	15.7	14.0	11.0	8.7	6.9	6.1	5.4
K5X-PS514-188	14' 9" / 4.50m	14'	5" SQ x .188"	Aluminum	78 lbs	20.6	17.9	13.7	11.9	10.4	7.9	6.0	4.4	3.7	3.1
K5X-PS516-188	16' 9" / 5.10m	16'	5" SQ x .188"	Aluminum	86 lbs	16.5	14.1	10.4	8.9	7.6	5.4	3.7	2.3	1.7	1.1
K5X-PS518-188	18' 9" / 5.71m	18'	5" SQ x .188"	Aluminum	95 lbs	12.9	10.9	7.6	6.3	5.1	3.2	1.7	0.5	-	-
K5X-PS520-188	20' 9" / 6.32m	20'	5" SQ x .188"	Aluminum	103 lbs	9.8	8.1	5.2	4.0	3.0	1.3	-	-	-	-
K5X-PS525-250	25' 9" / 7.85m	25'	5" SQ x .25"	Steel	427 lbs	25.0	25.0	19.4	17.1	15.1	11.7	9.0	6.9	6.0	5.1
K5X-PS530-250	30' 9" / 9.38m	30'	5" SQ x .25"	Steel	507 lbs	20.1	17.3	12.7	10.9	9.3	6.6	4.5	2.8	2.1	1.4

* - Consult factory for thicker shaft profiles and or custom heights not shown above.

ELECTRICAL (CONTINUED)

- Drivers are not compatible with current sourcing dimmers, consult factory for current list of known compatible dimming systems approved dimmers include Lutron Diva AVTV, Lutron Nova NDTV and NTFTV
- Luminaire are 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
- Luminaires not configured with a control system or ANSI C136 receptacle option are provided with 0-10 purple and gray dimming leads

CONTROLS

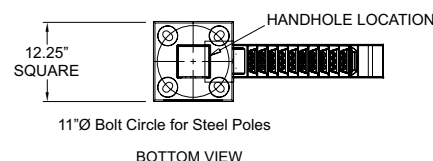
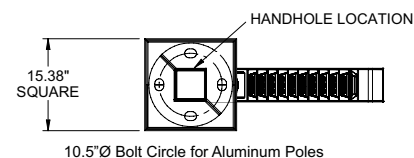
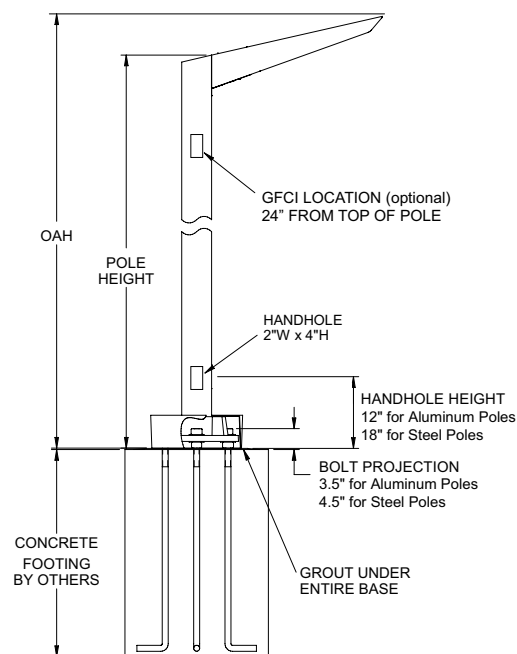
- Wireless enabled fixtures shall support bi-directional radio frequency (RF) communications utilizing IEEE 802.15.4 operating in the 2.4GHZ ISM band.
- Up to 1000' wireless range may be reduced by physical obstructions between lighting fixtures.
- Motion Sensor shall use passive infrared (PIR) sensing technology that reacts to changes in infrared energy (moving body heat) within the coverage area. Careful consideration must be given to obstructions that may block the sensor's line of sight.
- Factory default settings for SCP option shall be:
 - High mode: 10V
 - Low mode: 1V
 - Ramp-up rate: disabled
 - Fade-down rate: disabled
 - Photocell: Off
 - Sensitivity: Full
 - Time Delay: Fade to low: 5 minutes
 - Time Delay: Fade to off: 1 hour

CERTIFICATIONS

- Luminaire is listed with UL for outdoor, wet location use, UL1598, UL 8750 and Canadian CSA Std. C22.2 no.250
- ANSI C136.31-2010 4G Vibration tested and compliant
- IEC 66262 Mechanical Impact Code IK10
- IDA approved, 3000K and warmer CCTs only
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 6/06/2020.

WARRANTY

- 5 year warranty



DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

DELIVERED LUMENS

System Watts	Optical Finish	Distribution	Ordering Code	3000K 70CRI					4000K 70CRI					5000K 70CRI				
				Lumen	Bug Rating			Efficacy (Lm/W)	Lumen	Bug Rating			Efficacy (Lm/W)	Lumen	Bug Rating			Efficacy (Lm/W)
					B	U	G			B	U	G			B	U	G	
87	Standard White	Type 2	T2	9692	2	3	2	111	9895	2	3	2	114	10103	2	3	2	117
		Type 3	T3	9462	2	2	2	109	9715	2	2	2	112	9920	2	2	2	115
		Type 4	T4	9957	2	3	2	114	10223	2	3	2	117	10437	2	3	2	119
	Fixture Match	Type 2	T2-FO	7794	2	3	2	90	8003	2	3	2	92	8171	2	3	2	94
		Type 3	T3-FO	7744	2	2	2	89	7951	2	2	2	92	8118	2	2	2	94
		Type 4	T4-FO	8516	2	3	2	98	8744	2	3	2	100	8927	2	3	2	103
	Matte Black	Type 2	T2-MO	7794	2	0	1	90	8003	2	0	1	92	8171	2	0	1	94
		Type 3	T3-MO	7744	1	0	1	89	7951	1	0	1	92	8118	1	0	1	94
		Type 4	T4-MO	8516	2	0	2	98	8744	2	0	2	101	8927	2	0	2	103
122	Standard White	Type 2	T2	12694	3	3	3	104	13087	3	3	3	107	13369	3	3	3	109
		Type 3	T3	12560	2	3	2	103	12949	2	3	2	106	13228	2	3	2	108
		Type 4	T4	13091	2	3	2	107	13496	2	3	2	110	13787	3	3	2	112
	Fixture Match	Type 2	T2-FO	10344	3	3	3	85	10664	3	3	3	88	10893	3	3	3	90
		Type 3	T3-FO	10275	2	3	2	84	10593	2	3	2	87	10821	2	3	2	89
		Type 4	T4-FO	11194	2	3	2	92	11541	2	3	2	95	11789	3	3	2	97
	Matte Black	Type 2	T2-MO	10343	3	0	2	85	10664	3	0	2	88	10893	3	0	2	90
		Type 3	T3-MO	10275	2	0	2	84	10593	2	0	2	87	10821	2	0	2	89
		Type 4	T4-MO	11194	2	0	2	92	11541	2	0	2	95	11789	2	0	2	97
174	Standard White	Type 2	T2	17006	3	3	3	98	17532	3	3	3	101	17910	3	3	3	103
		Type 3	T3	16826	3	3	3	97	17347	3	3	3	100	17721	3	3	3	102
		Type 4	T4	17537	3	3	2	101	18080	3	3	2	104	18763	3	3	2	108
	Fixture Match	Type 2	T2-FO	13856	3	3	3	80	14286	3	3	3	82	14593	3	3	3	84
		Type 3	T3-FO	13765	2	3	2	79	14191	2	3	2	82	14497	2	3	2	84
		Type 4	T4-FO	14996	2	3	2	86	15460	2	3	2	89	15794	3	3	2	91
	Matte Black	Type 2	T2-MO	14343	3	0	2	83	14787	3	0	2	85	15315	3	0	2	88
		Type 3	T3-MO	14192	2	0	2	82	14631	2	0	2	84	15153	2	0	2	87
		Type 4	T4-MO	14791	3	0	2	85	15249	3	0	2	88	15794	3	0	2	91

K5A-LED

ARCHITECTURAL AREA LIGHTING

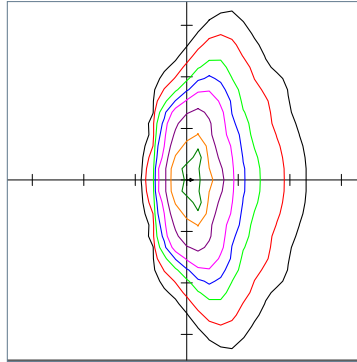
PHOTOMETRY

K5X-T2-9030

LUMINAIRE DATA

Description	4000 K, 80CRI
Delivered Lumens	9637
Watts	82
Efficacy	72.2

ISOFOOT CANDLE PLOT



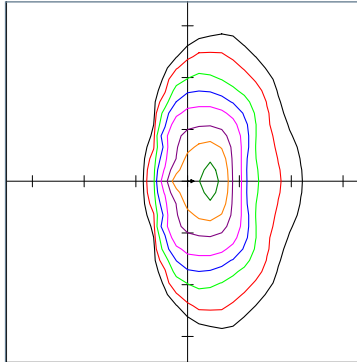
Mounting Height=10.00 ft

K5X-T3-9030

LUMINAIRE DATA

Description	4000 K, 80CRI
Delivered Lumens	9462
Watts	82
Efficacy	72.2

ISOFOOT CANDLE PLOT



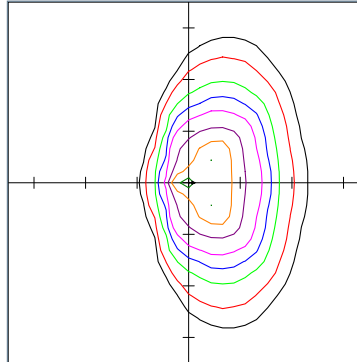
Mounting Height=10.00 ft

K5X-T4-9030

LUMINAIRE DATA

Description	4000 K, 80CRI
Delivered Lumens	9957
Watts	82
Efficacy	72.2

ISOFOOT CANDLE PLOT



Mounting Height=10.00 ft

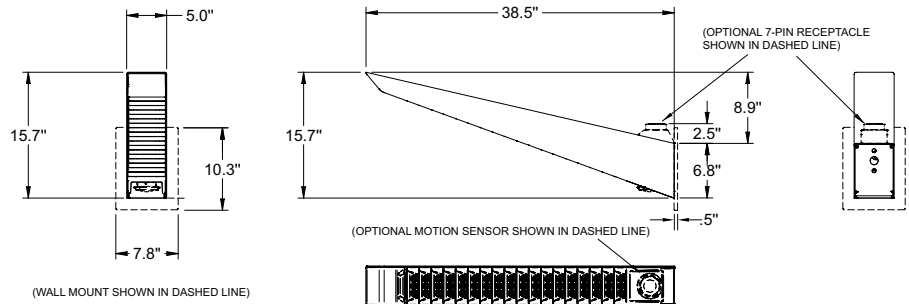
DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

DIMENSIONS

SIDE MOUNTED LUMINAIRE

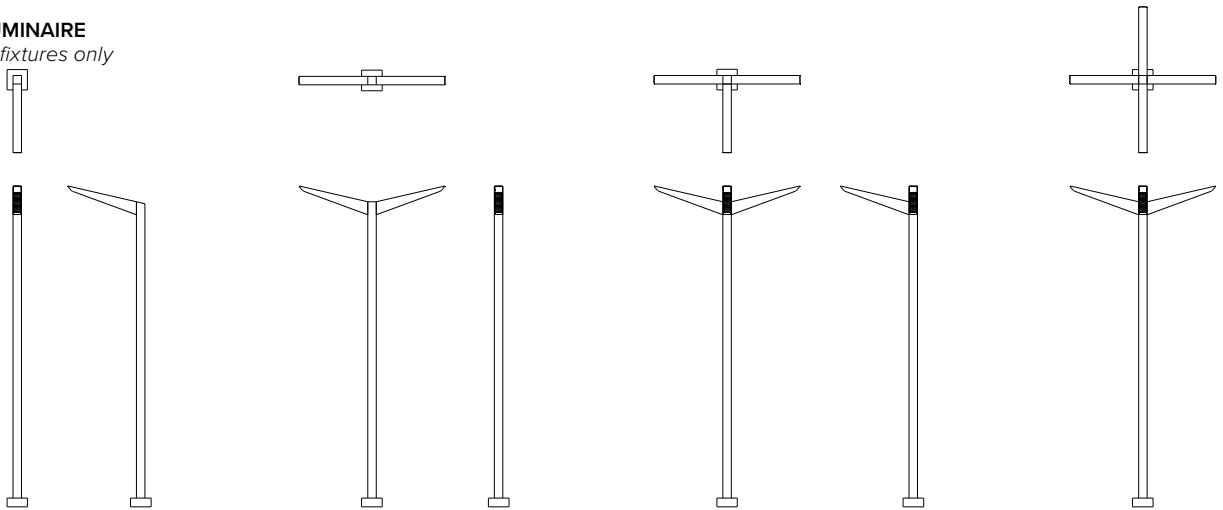
Mounts to the side of 5"/127mm square pole.

MODEL	K41-...-SMK
Overall Height	15.7" / 399mm
Overall Length	38.6" / 980mm
Overall Width	5" / 127mm
WEIGHT	20 lbs.
EPA	1.4



INTEGRAL POLE LUMINAIRE

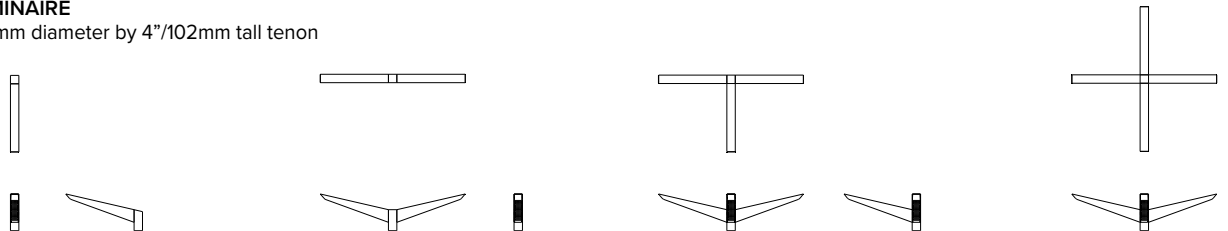
Weight and EPA for fixtures only



MODEL	K51-...-PS5XX-188	K52-...-PS5XX-188	K53-...-PS5XX-188	K54-...-PS5XX-188
Overall Length	43.5" / 1106mm	15.5" / 390mm	49" / 1238mm	82" / 2083mm
Overall Width	15.5" / 390mm	82" / 2083mm	82" / 2083mm	82" / 2083mm
WEIGHT	20 lbs.	40 lbs.	60 lbs.	80 lbs.
EPA*	1.43	2.7	3.1	3.1

TENON MOUNT LUMINAIRE

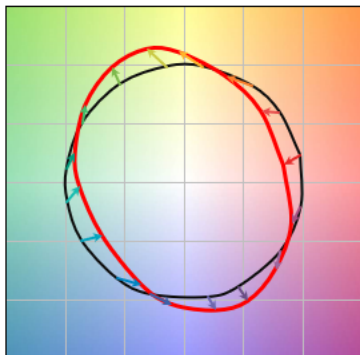
Slips over a 2 3/8"/60mm diameter by 4"/102mm tall tenon



MODEL	K51-...-TA23	K52-...-TA23	K53-...-TA23	K54-...-TA23
Overall Height	19" / 483mm	19" / 483mm	19" / 483mm	19" / 483mm
Overall Length	43.5" / 1106mm	5" / 127mm	43.5" / 1106mm	82" / 2083mm
Overall Width	5" / 127mm	82" / 2083mm	82" / 2083mm	82" / 2083mm
WEIGHT	25 lbs.	40 lbs.	55 lbs.	70 lbs.
EPA*	1.8	3.2	3.5	3.5

TM-30 DATA

COLOR VECTOR GRAPHIC

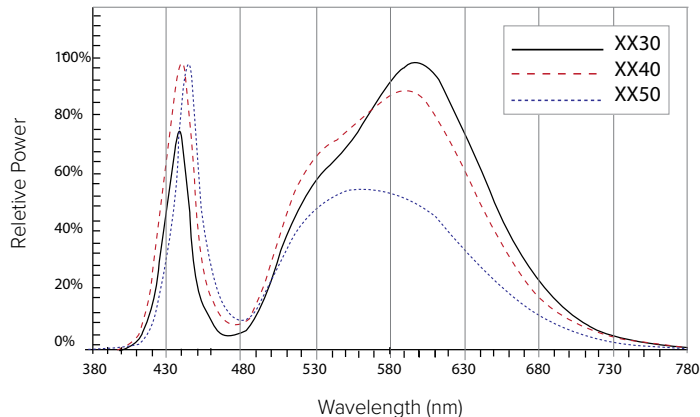


— Reference Illuminant — Test Source

TEST SOURCE

Value	Ordering Code		
	XX30	XX40	XX50
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

SPECTRAL POWER DISTRIBUTION COMPARISON



ELECTRICAL CHARACTERISTICS

Ordering Code	LED Current (mA)	System Wattage (W)	Input				Hz	Min. Power Factor	Max THD (%)	Dimming Range (V)	Driver Operating Temp. Range	Source/ Sink Current (mA)	Inrush Current Peak							
			Amps AC										(A)				T@50% (µs)			
			120	277	347	480							120	277	347	480	120	277	347	480
90XX	500	87	0.7	0.3	0.5	0.4	50/60	>0.9	20	0-10	-40°C-55°C	1	15	32	41	63	50	155		
120XX	700	122	1.0	0.4	0.4	0.3														
180XX	1000	173	1.4	0.6	0.3	0.2														

TM-21 LIFETIME CALCULATION (500MA)

Ambient Environment °C	Projected Lumen Maintenance (Khrs)					Reported L70
	25	50	60 (TM-21)	75	100	
25	98%	97%	96%	95%	94%	>60Khrs.
40	97%	96%	95%	94%	93%	

SENSOR DETECTION RANGE

		SENSOR MOUNTING HEIGHT							RATIO
		8'	10'	12'	14'	16'	18'	20'	
COVERAGE DIAMETER	SCP	20'	25'	30'	35'	40'	45'	50'	1:2.5
	WIRSC	16'	20'	24'	28'	32'	36'	40'	1:2

