

JOB _____ TYPE _____

NOTES _____ APPROVALS _____

FEATURES

- Independently aimed LEAR™ modules
- 355° rotation and 70° tilt module adjustment and -5° to +30° housing adjustment
- Wide range of drive currents available
- Design software interface for user-defined Type X distribution creation
- Traditional NEMA distributions available
- IP66 sealed optical chamber

Certifications



IK09



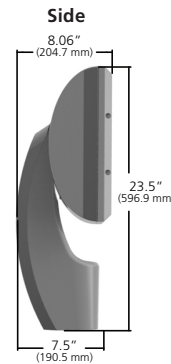
SPECIFICATIONS



Max Weight = 38 lbs.



Front - EPA 2.03



Side - EPA 1.18



Bottom

EPA 0.77

ORDERING CODE

ARFX09								
Fixture	Distribution	Electrical Module			Fixture Finish	Photocell Options	Fuse Options	
	SP Spot X Type X ¹ Type X IES File Name	<u>Color Temperature</u> 3K 3000K 4K 4000K 5K 5000K	<u>Drive Current</u> 35 350mA 40 400mA 45 450mA 50 500mA 55 550mA 60 600mA	<u>65 650mA</u> 70 700mA 75 750mA 80 800mA 85 850mA 90 900mA	<u>Voltages</u> UV 120-277V 347 347V 480 480V	LG Light Gray BL Black DB Dark Bronze GT Graphite PS Platinum Silver TT Titanium WH White CC Custom Color ²	A25-7H 7-pin Photocell Receptacle Horizontal ³ A25-7V 7-pin Photocell Receptacle Vertical ³ A30 120V Button Photocell A31 208V Button Photocell A32 240V Button Photocell A33 277V Button Photocell A34 480V Button Photocell A35 347V Button Photocell	SF 120, 277, 347 Line Volts DF 208, 240, 480 Line Volts
NFO Option	Control Options			Motion		Mounting Options		
NFO Neighbor Friendly Optic	<u>Wireless</u> WIR-RMI-IO 120 - 347V 1000 Foot Range WiScape RF mesh control system with off/on/dim, motion, photo, GPS location, alert, monitoring and metering capabilities. <u>SiteSync Lighting Control</u> SWP ^{4,5} SiteSync Wireless Pre-Commission	<u>Control Accessories</u> SWUSB ¹ SiteSync loaded on USB flash drive (Windows® operating system only) SWTAB ¹ SiteSync Windows® based Tablet SWBRG ¹ SiteSync Wireless Bridge Node WIR-RME-L wiSCAPE External Fixture Module	<u>Motion</u> SCH-R Round Pole Mounted Occupancy Sensor up to 30' SCH-S Square Pole Mounted Occupancy Sensor up to 30'		SMT ⁶ Surface Mount Tenon SM2 ⁶ Stanchion Mount Tenon WM2 ⁶ Wall Mount Tenon MTM-2B Twin Mount Tenon MTM-3E Triple Mount Tenon			

For Pole Spec Select: http://www.kimlighting.com/products/arms_and_poles/
For Control Spec Select: <http://trpssl.com/index.html>

¹ User-defined distributions must include IES# file where indicated
² Custom colors subject to additional charges, minimum quantities and extended lead times. Consult representative.
³ Indicates mounting position of fixture.
⁴ Not available with other control or sensor options.
⁵ Specify group and zone. See SiteSync product page www.hubbellighting.com/controls/sitesync for more details.
⁶ Not for use with MTM-2B or MTM-3E options.

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[†] When ordering with SiteSync, one of the following interface options must be chosen and ordered separately. Each option contains the SiteSync License, GUI and Bridge Node.

Color Temp Field Angle - 10% max	Photometrics (3000K)											
Drive Current	350 mA	400 mA	450 mA	500 mA	550 mA	600 mA	650 mA	700 mA	750 mA	800 mA	850 mA	900 mA
Lumens	1809	1896	1966	2072	2187	2302	2416	2531	2646	2761	2875	2990
Maximum Candela	31258	32761	33973	35802	37789	39776	41746	43733	45720	47707	49677	51664
Maximum Candela Angle H	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Candela Angle V	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
Horizontal Beam Angle (50%)	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
Vertical Beam Angle (50%)	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1

Color Temp Field Angle - 10% max	Photometrics (4000K)											
Drive Current	350 mA	400 mA	450 mA	500 mA	550 mA	600 mA	650 mA	700 mA	750 mA	800 mA	850 mA	900 mA
Lumens	2258	2399	2540	2681	2830	2980	3129	3278	3427	3577	3726	3875
Maximum Candela	33412	35524	37584	40312	41865	44096	46299	48506	50710	52930	55135	57340
Maximum Candela Angle H	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Candela Angle V	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
Horizontal Beam Angle (50%)	9.4	9.4	9.4	9	9.4	9.9	9.9	9.9	9.9	9.9	9.9	9.9
Vertical Beam Angle (50%)	12.4	12.4	12.4	12.3	12.4	13	13	13	13	13	13	13

Color Temp Field Angle - 10% max	Photometrics (5000K)											
Drive Current	350 mA	400 mA	450 mA	500 mA	550 mA	600 mA	650 mA	700 mA	750 mA	800 mA	850 mA	900 mA
Lumens	2484	2639	2794	2949	3113	3277	3442	3606	3770	3934	4098	4263
Maximum Candela	43753	46484	49214	51944	54833	57721	60628	63516	66405	69293	72182	75088
Maximum Candela Angle H	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Candela Angle V	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
Horizontal Beam Angle (50%)	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
Vertical Beam Angle (50%)	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1

Optical System	Electrical										Dimming						
	Current	System Watts	Line Voltage		Amps AC						Min. Power Factor	Max THD (%)	Dimming Range	Source current out of 0-10V purple wire		Absolute voltage range on 0-10V (+) purple wire	
			VAC	Hz	120	208	240	277	347	480				Min	Max	Min	Max
LEAR™	350 mA	34	120-480	50/60	0.28	0.16	0.14	0.12	0.10	0.07	>0.9	20	10% to 100%	0mA	1mA	0V	10V
	400 mA	38			0.32	0.18	0.16	0.14	0.11	0.08							
	450 mA	43			0.36	0.21	0.18	0.16	0.12	0.09							
	500 mA	48			0.40	0.23	0.20	0.17	0.14	0.10							
	550 mA	53			0.44	0.25	0.22	0.19	0.15	0.11							
	600 mA	58			0.48	0.28	0.24	0.21	0.17	0.12							
	650 mA	62			0.52	0.30	0.26	0.23	0.18	0.13							
	700 mA	67			0.56	0.32	0.28	0.24	0.19	0.14							
	750 mA	72			0.60	0.35	0.30	0.26	0.21	0.15							
	800 mA	77			0.64	0.37	0.32	0.28	0.22	0.16							
	850 mA	82			0.68	0.39	0.34	0.29	0.24	0.17							
900 mA	86	0.72	0.42	0.36	0.31	0.25	0.18										

TM-21 LIFETIME CALCULATION*

Optical System	Ambient Environment °C	Projected Lumen Maintenance			Reported L70
		16	26	TM-21 48	
LEAR™	25	91.20%	85.70%	74.87%	> 48,000 hrs

*Projected lifetime from 700mA LM-80 data.

LED COLOR

Designation	Spectroradiometric		
	3K	4K	5K
3000K	3000K	4000K	5000K
CRI Minimum	≥72	≥72	≥72
S/P Ratio	1.33	1.66	1.78

Kim Lighting reserves the right to change specifications without notice. Consult factory for Amber, Turtle Friendly, Gulf Coast and Observatory applications.

SPECIFICATIONS

Housing:

- Low copper aluminum alloy die-casting designed as one-piece with external cooling ribs.
- Solid cast aluminum walls between the housing and arm create a thermal barrier between the optical and electrical compartments.
- Molded silicone gaskets throughout to insure sealing between the two compartments and ingress protection.
- Housing designed with integral Type X thermal transfer “turrets” utilized for both thermal transfer and to secure location of the LEAR™ Optical Module. The turrets are spaced in rows of 3 X 3, designed to optimize photometric performance for standard and Type X user-defined distributions.
- Tempered UV coated flat lens for low glare.
- IK09 rated enclosure protects electrical equipment against external mechanical impacts.

Lens Frame:

- One-piece, die-cast, low copper aluminum alloy secured to housing with eight captive, tamper-resistant stainless steel fasteners.
- Molded silicone gasket assembles into a cast channel in the doorframe sealing the 3/16” thick low iron-content, tempered glass lens against the housing upon closure.
- IP66 certified to protect the interior components from dust and water ingress.

Type X LEAR™ Optical Module:

- Turret alignment and thermal transfer design allow for freedom of adjustability and precision of the LEAR LED array.
- Optimized standard distribution or user-defined beam patterns.
- 3000K, 4000K, 5000K standard CCT. Amber and other custom color temperatures available.
- Factory adjusted distributions created from user-defined IES files.
- Toolless 355° rotation adjustment and 70° tilt adjustment with a tamper resistant fastener.

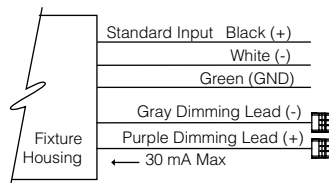
- Type X LEAR modules are IP66 rated and utilize six high output LEDs, positioned beneath a precision, high purity molded acrylic prism.
- Targeted optics minimize pixilation concerns to provide outstanding performance, uniformity and glare control.

Electrical Components:

- Standard programmable driver for variable drive current settings from 350mA to 900mA.
- Electrical components are located in the arm. Molded silicon gasket seal to isolate arm from the optical chamber.
- Maximum lightning surge current 20KA with thermally protected varistor technology. Surge suppression is series circuited preventing total fixture failure.
- Open circuit fault will turn off the luminaire protecting the sensitive electronics and acting as a signal for maintenance.
- Programmable Driver is rated for -40°F starting.
- “Thermal Shield” Primary Side thermister Protection for sustainable life of LEAR modules and electronic components.

Dimming:

- Dimming range from 10% to 100% by the use of its standard 0-10V interface on the programmable driver.
- Modular wiring harness in the service area provided for user access to the dimming circuitry.
- Dimming circuitry compatible with 0-10V user-defined control devices.
- Optional factory programmed dimming profile.



Arm:

- Low copper aluminum alloy, two piece die-casting designed and gasketed to function as one-piece.

- External cooling ribs create continuous aesthetic and thermal path.
- Molded silicone gasket seals the wiring channel separating the arm from the housing thermally insulating the electronic components.
- Internally accessible slip-fitter provided. Attaches to a 1-1/4” to 2-3/8” tenon.
- Luminaire housing adjustable +30° and -5 via locking fastener under the arm cover.

Finish:

- Fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat.
- Standard colors include (BL) Black, (DB) Dark Bronze, (GT) Graphite, (PS) Platinum Silver, (LG) Light Gray, (TT) Titanium, (WH) White, and (CC) Custom Color (Include RAL#).

Fuse Options:

SF for 120, 277 and 347 Line Volts
DF for 208, 240 and 480 Line Volts.

- High temperature fuse holders factory installed inside the fixture arm. Fuse is included.

Certifications and Listings:

- UL 1598 Standard for Luminaires.
- UL 8750 Standard for Safety for Light Emitting Diode (LED) Equipment for use in Lighting Products.
- CSA C22.2#250.0 Luminaires.
- ANSI C136.31-2010 3G Vibration tested and compliant.
- RoHS compliant.
- IP66 certified.
- IEC 66262 Mechanical Impact Code IK09.

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.

WARRANTY:

- For full warranty see: <http://www.hubbellighting.com/resources/warranty>

CONTROLS

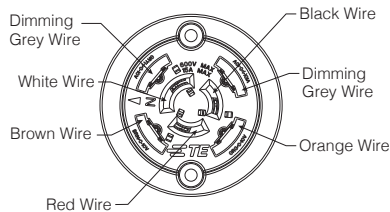
Photocell Receptacle

A25-7H or A25-7V

Fully gasketed and wired 7-pin receptacle standard. Easy access location above the electrical compartment. 7-pin construction allows user-defined interface and control definition of operational performance. ANSI twist-lock control module by-others. H (Horizontal) or V (Vertical) indicates mounting position of fixture.

Standard customer operation modes:

1. Traditional on/off photoelectric control.
2. 5-pin wireless photoelectric control for added dimming feature.
3. 7-pin wireless photoelectric control for dimming and additional I/O connections for customer use.



Button Photocell

A30 for 120V, **A31** for 208V, **A32** for 240V, **A33** for 277V, **A35** for 347V, **A34** for 480V,

Factory installed photocell inside housing with a fully gasketed sensor on the side wall. For multiple fixture mountings, one fixture is supplied with a photocell to operate the others.

Wireless Controls

wiSCAPE™

Hubbell Control Solution's wiSCAPE™ wireless control modules allow an individual fixture to be managed, monitored and measured. The modules communicate securely over a robust certified meshed radio signal. The wiSCAPE modules provide on/off/dim control, external device input, alerts and metering.

WIR-RMI-IO

wiSCAPE Internal Module, 120-480V, 1000ft range (LOS), 3 Digital Inputs/1 Analog Input, 2 Outputs.

WIR-RME-L

wiSCAPE External Module, 120-480V, 1000ft range (LOS), Internal Photocell, 1 Digital Input, Compatible with the A-25-7H option

SiteSync™¹

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.

Pole Mounted

Round Pole-Mounted Occupancy Sensor 16' to 30'

SCH-R

Round Pole-Mounted Occupancy Sensor: 16' to 30' - an outdoor occupancy sensor with 0-10V interface dimming control that mounts directly to the pole. Wide 360° pattern. Module colors are available in Black, Gray, and White. Module is cut for round pole mounting. Pole diameter is needed upon order. Poles to be drilled in the field will be provided with installation instructions.

Ordering Example: SCH-R4²/277³/BL⁴

Square Pole-Mounted Occupancy Sensor 16' to 30'

SCH-S

Square Pole-Mounted Occupancy Sensor: 16 to 30' - an outdoor occupancy sensor with 0-10V interface dimming control that mounts directly to the pole. Wide 360° pattern. Module colors are available in Black, Gray, and White. Module is cut for round pole mounting. Pole diameter is needed upon order. Poles to be drilled in the field will be provided with installation instructions.

Ordering Example: SCH-S/277³/BL⁴

SCP

The SCP is a photo-control with motion sensing accessory that mounts to the side of any new or existing 3"-5" round or square straight pole. The SCP enables any pole mounted luminaire in excess of 75 watts, to meet California Title 24 requirements with integral 20KV/10KA surge protection for added reliability and serviceability.

For more detail:

http://www.aal.net/products/sensor_control_programmable

¹PRECOMMISSIONED 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.

SiteSync fixtures with occupancy sensor (SWPM) require the mounting height of the fixture for selection of the lens.

Examples:

SiteSync only : ARX25/1/3K35UV/PS/US/SWP

SiteSync with Motion Control: ARX25/1/3K35UV/PS/US/SWPM-20F

MOB ORDERING INFORMATION: When ordering a fixture with a dimming occupancy sensor option (MOB), please specify the appropriate information. These settings are specified in the ordering as shown in the example below.

ARX25/1/3k35UV/PS/US/MOB - 1 to 30 min - 33%²or 50% - ?? / DBT

High to Dim Delay Low Level Mounting Height (ft.)

²Voltage, ³Color, ⁴Pole Diameter,

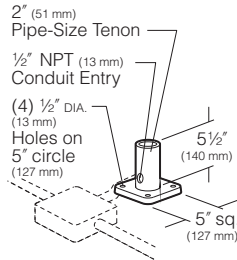
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MOUNTING OPTIONS

Surface Mount Tenon

SMT/BL

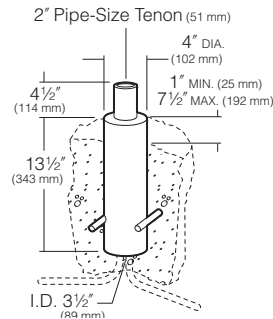
2" pipe-size tenon (2-3/8" O.D., 2" I.D.).
Welded to a cast aluminum plate. Plate has four 1/2" mounting holes, and tenon has one 1/2" NPT for side conduit entry. Black finish.



Stanchion Mount Tenon

SM2/BL

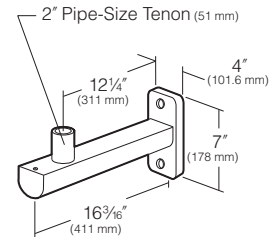
2" tenon. 4" O.D. cast low copper (<0.6% Cu) aluminum stanchion with 2" pipe-size tenon (2-3/8" O.D., 1-3/8" I.D.) for mounting a single fixture or multiple top-mounts. Black finish.



Wall Mount Tenon

WM2/BL, WM2/DB, WM2/LG, WM2/SG, WM2/PS, WM2/WH

2" pipe-size tenon (2-3/8" O.D., 2" I.D.).
Welded to an extruded aluminum arm with a removable end cap for wiring access. Arm is welded to a cast aluminum plate with two 1/2" mounting holes.

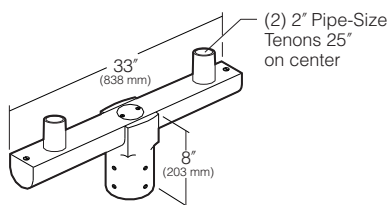


Twin Mount Tenon

MTM-2B/BL, MTM-2B/DB, MTM-2B/LG, MTM-2B/SG, MTM-2B/PS, MTM-2B/WH

Extruded aluminum support continuously welded to a heavy cast aluminum slipfitter hub which cradles the arm for strength. The slipfitter hub contains four recessed 3/8" stainless steel allen head set point screws for mounting to steel pole with steel 2" pipe size tenon (2-3/8" O.D. x 4-1/4"). Cast aluminum end caps and center cap provide access to field splice connections.

CAUTION: Approved for mounting to poles with steel tenons only.

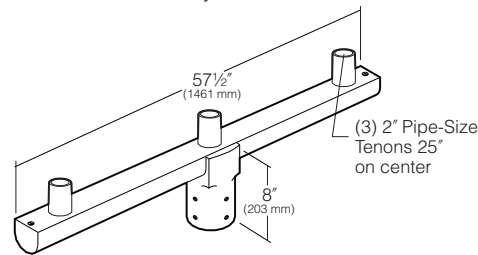


Triple Mount Tenon

MTM-3E/BL, MTM-3E/DB, MTM-3E/LG, MTM-3E/SG, MTM-3E/PS, MTM-3E/WH

Extruded aluminum support continuously welded to a heavy cast aluminum slipfitter hub which cradles the arm for strength. The slipfitter hub contains four recessed 3/8" stainless steel allen head set point screws for mounting to steel pole with steel 2" pipe size tenon (2-3/8" O.D. x 4-1/4"). Cast aluminum end caps and center cap provide access to field splice connections.

CAUTION: Approved for mounting to poles with steel tenons only.



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