

Flex™ LED- FH

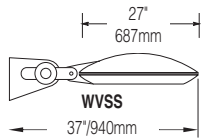
TYPE

FEATURES

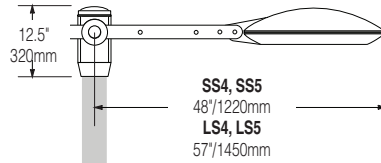
- Reliable, uniform, glare free illumination
- Types II, III, IV, V and custom distributions
- 3000K, 4000K, 5000K CCT
- 0-10V dimming ready
- Integral surge suppression
- LifeShield™ thermal protection
- 13 standard powder coat finishes
- Upgrade Kits



SPECIFICATIONS

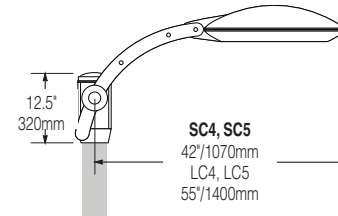


- Weight: 48 lbs
- EPA: 0.93



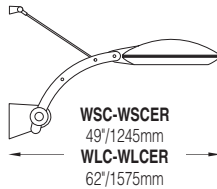
SS4, SS5
48'/1220mm
LS4, LS5
57'/1450mm

- Weight: 52 lbs
- EPA: 1.37
- Weight: 52 lbs
- EPA: 1.53

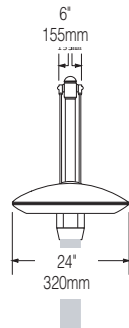


SC4, SC5
42'/1070mm
LC4, LC5
55'/1400mm

- Weight: 52 lbs
- EPA: 1.38



- WSC**
- Weight: 53 lbs
 - EPA: 1.67
- WLC**
- Weight: 56 lbs
 - EPA: 1.85



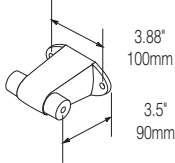
- SS4XP, SS5XP**
LS4XP, LS5XP
- Weight: 52 lbs
 - EPA: 1.53

SS4XPSS/5XP
LS4XP/LS5XP
SC4XP/SC5XP
33'/840mm

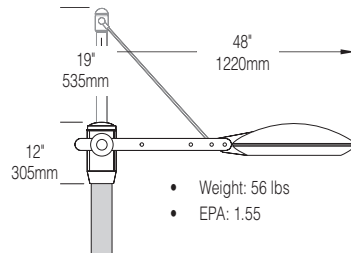
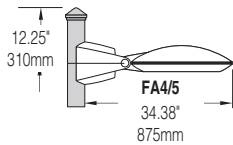
LC4XP/LC5XP
47'/1180mm

- SS4XP, SS5XP**
- Weight: 52 lbs
 - EPA: 1.55
- LS4XP/LS5XP**
- Weight: 56 lbs
 - EPA: 1.71
- SC4XP/SC5XP**
- Weight: 56 lbs
 - EPA: 1.54
- LC4XP/LC5XP**
- Weight: 56 lbs
 - EPA: 2.04

EXTENSION ROD PLATE

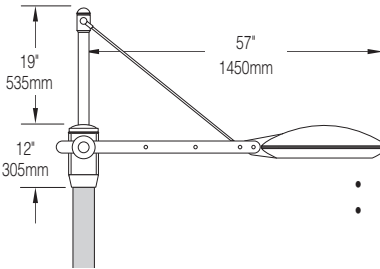


- FA4**
- Weight: 55 lbs
 - EPA: 1.12
- FA5**
- Weight: 55 lbs
 - EPA: 1.12



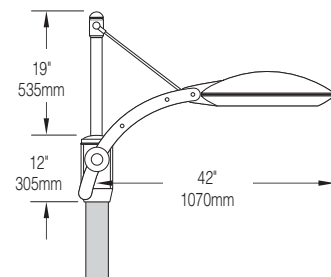
SHORT STRAIGH ARMS WITH EXTENSION

- Weight: 56 lbs
- EPA: 1.55



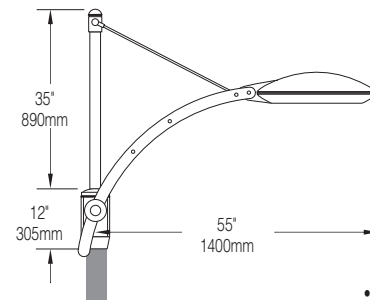
LONG STRAIGH ARMS WITH EXTENSION

- Weight: 56 lbs
- EPA: 1.71



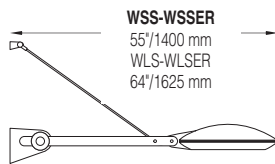
SHORT CURVED ARMS WITH EXTENSION

- Weight: 56 lbs
- EPA: 1.54



LONG CURVED ARMS WITH EXTENSION

- Weight: 56 lbs
- EPA: 2.04



- Weight: 50 lbs
- EPA: 1.53



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JOB _____
TYPE _____
NOTES _____

SPECIFICATIONS

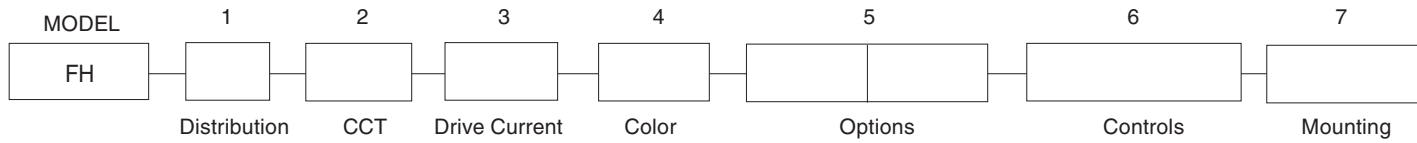
WEIGHT & EPA

WALL MOUNT			ARM MOUNT					
ARMS	WT	EPA	ARMS	WT	EPA	ARMS	WT	EPA
WVSS	48	.93	SS4/SS5	52	1.37	SC4/SC5	52	1.38
WSS	53	1.47	TSS4/TSS4	98	2.52	TSC4/TSC5	98	2.54
WLS	55	1.63	PSS4/PSS5	144	3.13	PSC4/PSC5	147	3.15
WSC	53	1.67	QSS4/QSS5	144	3.90	QSC4/QSC5	193	3.97
WLC	56	1.85	SS4XP/SS5XP	56	1.55	SC4XP/SC5XP	56	1.54
WSSER	50	1.53	TSS4XP/TSS5XP	106	2.45	TSC4XP/TSC5XP	106	2.72
WLSER	57	1.69	PSS4XP/PSS5XP	156	3.06	PSC4XP/PSC5XP	156	3.33
WSCER	55	1.54	QSS4XP/QSS5XP	206	4.08	QSC4XP/QSC5XP	196	4.14
WLCER	58	1.91	LS4/LS5	52	1.53	LC4/LC5	52	1.75
POST MOUNT			TLS4/TLS5	98	2.84	TLC4/TLC5	98	3.28
ARMS	WT	EPA	PLS4/PLS5	144	3.45	PLC4/PLC5	144	3.98
FA4	55	1.12	QLS4/QLS5	144	3.93	QLC4/QLC5	197	5.16
FA5	55	1.12	LS4XP/LS5XP	56	1.71	LC4XP/LC5XP	56	2.04
			TLS4XP/TLS5XP	106	3.07	TLC4XPT/TLC5XP	106	3.60
			PLS4XP/PLS5XP	156	3.68	PLC4XPT/PLC5XP	156	4.21
			QLS4XP/QLS5XP	206	4.64	QLC4XPT/QLC5XP	200	5.44



JOB	_____
TYPE	_____
NOTES	_____

ORDERING INFORMATION



1. DISTRIBUTION

MicroCore Precision aimed optics

- T2-56LED
- T3-56LED
- T4-56LED
- T5-56LED
- TL-56LED
- TR-56LED

32LED configuration is available upon request. Please consult factory for details and photometry.

2. COLOR TEMPERATURE

- 3K 4K 5K

3. DRIVE CURRENT

- 700 450

4. COLOR

Standard Color

- AGN *Antique Green*
- BL *Black*
- BLT *Matte Black*
- CRT *Corten*
- DB *Dark Bronze*
- DGN *Dark Green*
- GT *Graphite*
- LG *Light Grey*
- MAL *Matte Aluminum*
- MDB *Bronze Metallic*
- MG *Medium Grey*
- TT *Titanium*
- WH *Arctic White*
- WDB *Weathered Bronze*
- VBU *Verde Blue*

Premium Color

- SHK *Shamrock*
- SPP *Salt and Pepper*
- SFM *Seafoam*
- WCP *Weathered Copper*
- RAL *RAL 4 digit Color*
- CUSTOM *Custom Color*

5. LENS OPTIONS

- HSS (*House Side shield for Type 4*)
- LDL (*Lightly diffused lens*)
- CLR (*Clear flat lens*)

6. CONTROLS

LPC12 (*Photocell with adjustable swivel for aiming. 120 volt.*)

LPC27 (*Photocell with adjustable swivel for aiming. 208/240/277 volt.*)

SCP (*Sensor Control Programmable*) pole accessory is available to provide occupancy detection for outdoor applications meeting California Title 24. For complete spec sheet and ordering information, visit www.aal.net/products/sensor_control_programmable/

7. MOUNTING – Must choose one

WALL MOUNT

Straight Arms

- WVSS (*Very short*)
- WSS (*Short*)
- WLS (*Long*)

Curved Arms

- WSC (*Short*)
- WLC (*Long*)

WALL MOUNT ARM WITH EXTENSION (*Rods and wall plate*)

Straight Arms

- WSSER (*Short*) WLSER (*Long*)

Curved Arms

- WSCER (*Short*) WLCER (*Long*)

Arm and wall plate mounting hardware provided by others.

POST MOUNT

Fixed Arms

- FA4 (*Attaches to the side of a 4"/100mm pole*)
- FA5 (*Attaches to the side of a 5"/127mm pole*)
- Two individual arms can be mounted to a pole at a 180° orientation.*

Short Straight Arms - Slips over a 4"/100mm pole

SS4

TSS4 (*Twin*)

PSS4 (*3-way-T*)

QSS4 (*4-way, horizontal position only*)

Short Straight Arms - Slips over a 5"/127mm pole

SS5

TSS5 (*Twin*)

PSS5 (*3-way-T*)

QSS5 (*4-way, horizontal position only*)

Short Straight Arms with Extension - Slips over a 4"/100mm pole

SS4XP

TSS4XP (*Twin*)

PSS4XP (*3-way-T*)

QSS4XP (*4-way, horizontal position only*)

Short Straight Arms with Extension - Slips over a 5"/127mm pole

SS5XP

TSS5XP (*Twin*)

PSS5XP (*3-way-T*)

QSS5XP (*4-way, horizontal position only*)

Long Straight Arms - Slips over a 4"/100mm pole

LS4

TLS4 (*Twin*)

PLS4 (*3-way-T*)

QLS4 (*4-way, horizontal position only*)

Long Straight Arms - Slips over a 5"/127mm pole

LS5

TLS5 (*Twin*)

PLS5 (*3-way-T*)

QLS5 (*4-way, horizontal position only*)

Long Straight Arms with Extension - Slips over a 4"/100mm pole

LS4XP

TLS4XP (*Twin*)

PLS4XP (*3-way-T*)

QLS4XP (*4-way, horizontal position only*)

Long Straight Arms with Extension - Slips over a 5"/127mm pole

LS5XP

TLS5XP (*Twin*)

PLS5XP (*3-way-T*)

QLS5XP (*4-way, horizontal position only*)

Short Curved Arms - Slips over a 4"/100mm pole

SC4

TSC4 (*Twin*)

PSC4 (*3-way-T*)

QSC4 (*4-way*)

Short Curved Arms - Slips over a 5"/127mm pole

SC5

TSC5 (*Twin*)

PSC5 (*3-way-T*)

QSC5 (*4-way*)

Short Curved Arms with Extension - Slips over a 4"/100mm pole

SC4XP

TSC4XP (*Twin*)

PSC4XP (*3-way-T*)

QSC4XP (*4-way*)

Short Curved Arms with Extension - Slips over a 5"/127mm pole

SC5XP

TSC5XP (*Twin*)

PSC5XP (*3-way-T*)

QSC5XP (*4-way*)

Long Curved Arms - Slips over a 4"/100mm pole

LC4

TLC4 (*Twin*)

PLC4 (*3-way-T*)

QLC4 (*4-way*)

Long Curved Arms - Slips over a 5"/127mm pole

LC5

TLC5 (*Twin*)

PLC5 (*3-way-T*)

QLC5 (*4-way*)

Long Curved Arms with Extension - Slips over a 4"/100mm pole

LC4XP

TLC4XP (*Twin*)

PLC4XP (*3-way-T*)

QLC4XP (*4-way*)

Long Curved Arms with Extension - Slips over a 5"/127mm pole

LC5XP

TLC5XP (*Twin*)

PLC5XP (*3-way-T*)

QLC5XP (*4-way*)

JOB _____
 TYPE _____
 NOTES _____

LUMINAIRE PERFORMANCE

Optical System	Optical Finish	Distribution	Light Engine	Ordering Code									Drive Current (ma)	System Watts						
				3K			4K			5K										
				Delivered Lumens	Efficacy (lm/w)	Bug Rating	Delivered Lumens	Efficacy (lm/w)	Bug Rating	Delivered Lumens	Efficacy (lm/w)	Bug Rating								
Microcore 2.0	No Lens (Standard)	TYPE 2	T2-56LED	12055	93	3	0	3	12443	96	3	0	3	12962	100	3	0	3	700	130
		TYPE 3	T3-56LED	12123	93	3	0	3	12515	96	3	0	3	13036	100	3	0	3		
		TYPE 4	T4-56LED	11718	90	1	0	3	12096	93	1	0	3	12600	97	1	0	3		
		TYPE 5	T5-56LED	12389	95	4	0	2	12788	98	4	0	2	13321	102	4	0	2		
	HSS	TYPE 4	T4-56LED-HSS	8139	63	0	0	2	8401	65	0	0	2	8751	67	0	0	2	450	80
	No Lens (Standard)	TYPE 2	T2-56LED	8140	102	2	0	2	8402	105	2	0	2	8753	109	2	0	2		
		TYPE 3	T3-56LED	8186	102	2	0	2	8450	106	2	0	2	8803	110	2	0	2		
		TYPE 4	T4-56LED	7912	99	1	0	2	8168	102	1	0	2	8508	106	1	0	2		
		TYPE 5	T5-56LED	8365	105	3	0	2	8635	108	3	0	2	8995	112	3	0	2		
	HSS	TYPE 4	T4-56LED-HSS	5496	69	0	0	2	5673	71	0	0	2	5909	74	0	0	2		
Prorate Lumen Values from 700mA to 450mA											0.67525									

ELECTRICAL CHARACTERISTICS

Optical System	Ordering Code	Driver							Dimming									
		LED Drive mA	System Watts	Line Voltage		Amps AC		Min. Power Factor	Max THD (%)	Operating Temp. Range	Dimming Range	Source current out of 0-10V purple wire			Absolute voltage range on 0-10V (+) purple wire			
				VAC	HZ	120	277					Min	Typical	Max	Min	Typical	Max	
MicroCore	56LED	700	700	132	120-277	50/60	1.1	0.48	≥9	20	-30°C TO +40°C	10% TO 100%	0 MA	-	8 mA	-2.0 V	-	+15 V
		450	450	84			0.71	0.31										

LED COLOR

Consult factory for Amber, Turtle Friendly, Gulf Coast and Observatory applications.

	Ordering Code		
	3K	4K	5K
CCT Average	3000K	4000K	5000K
CRI Minimum	≥ 80	≥ 70	≥ 70
S/P Ratio	1.33	1.66	1.78

TM-21 LIFETIME CALCULATION

Optical System	Ordering Code	Ambient Environment °C	Projected Lumen Maintenance (% vs. Khrs)					Reported L70
			15	25	50	60	100	
MicroCore	56LED	15	93	91	87	85	78	>60Khrs
		25	93	91	87	85	78	



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JOB	_____
TYPE	_____
NOTES	_____

SPECIFICATIONS

HOUSING

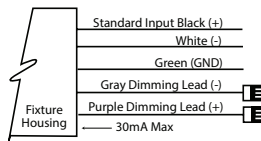
- Luminaire shall have discrete optical and gear compartments that do not share any physical housings.
- The arm module shall consist of two stainless steel rails that attach to the fixture housing and post top (or wall mount) module.
- Cables between modules shall be sheathed in a flexible stainless steel with nickel plated brass fittings.
- Extended post arms shall have a cast post extension and top cap with two stainless steel tubes. The tubes shall be field trimmed to fit straight arms that are pivoted up 30°.
- All housing components shall be die-cast aluminum, sealed with continuous silicone rubber gaskets.
- Standard configurations do not require a flat lens, optional lenses shall be tempered glass
- All internal and external hardware shall be stainless steel.
- Optical bezel finish shall match the luminaire housing.

OPTICAL

- Patent pending MicroCore™ LED modules shall independently aim each light emitting diode (LED) in both horizontal rotation and vertical tilt angle.
- LEDs shall be mounted to a metal printed circuit board assembly (PCBA) with a uniform conformal coating over the panel surface and electrical features.
- LED optics shall be clear injection molded PMMA acrylic.
- MicroCore™ PCBA and optic shall be sealed to a die-cast anodized aluminum heat sink with an injection molded silicone rubber gasket. IP66.
- Type 4 distribution with optional House Side Shield not available with clear or diffused glass lenses. Factory installed House Side Shield is optimized for Type 4 distribution and not recommended for use with Type 2 or 3 distribution and not available with type 5 distribution.

ELECTRICAL

- Luminaires shall have integral surge protection that shall be 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.
- Drivers shall be U.L. recognized with an inrush current maximum of <20.0 Amps maximum at 230VAC.
- Drivers shall not be compatible with current sourcing dimmers, consult factory for current list of known compatible dimming systems, approved dimmers include Lutron Diva AVTV, Lutron Nova NFTV and NTFTV.
- LifeShield™ shall be provided with all configurations for added protection in the event of abnormally excessive high ambient temperature conditions.



CONTROLS

- SCP shall have an integral surge protection device with a current rating of 10,000 Amps using the industry standard 8/20uSec wave and surge rating of 372J
- Sensor not intended for use with additional photo-control, wireless control or dimming systems.

PHOTOCELL / EGRESS ADAPTERS

- Adapter(s) shall slip over a 4"/100mm DIA. pole with the luminaire or arm slipping over the adapter to add a total of 4.5"/114mm to the overall height. Adapter(s) shall be prewired, independently rotatable 359°, and have a cast access cover with an integral lens and lanyard.
- Photocell adapter shall include an internal twist lock receptacle. Photocell by others.
- Egress adapter shall require an auxiliary 120 volt supply for operation of an integral MR16 lamp in the event of emergency. The lamp may be aimed and locked into position with an adjustment range of 15°-45°. Adapter shall have a socket that accepts miniature bi-pin MR16 lamps up to 50 watts, lamp by others.

SERVICING

- The driver door shall swing down for service access by loosening two captive bolts.
- Driver and surge suppressor shall be mounted to a prewired tray with quick disconnects that may be removed from the gear compartment.

INSTALLATION AND MOUNTING (ARM MOUNTING)

- Luminaire shall be factory supplied as a complete, prewired assembly including, LED array, driver, arm and post top (or wall mount). The post top shall slip over a 4"/100mm or 5"/127mm open top pole and be secured with six stainless steel set screws.
- Wall mounted arms and brackets shall require mounting hardware by others.

FINISH

- Luminaire finish shall 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 shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance.

CERTIFICATION

- Luminaire shall be listed with ETL for outdoor, wet location use, UL1598, UL 8750 and Canadian CSA Std. C22.2 no.250.

WARRANTY / TERMS AND CONDITIONS OF SALE

Download: <http://www.hubbelling.com/resources/warranty/>



JOB	_____
TYPE	_____
NOTES	_____