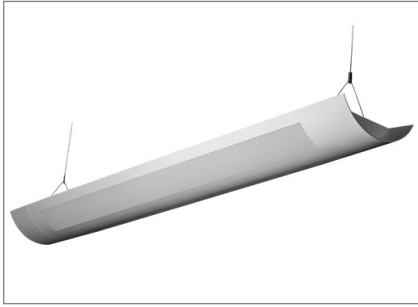


SIOP LED

Project Name:

Type:


CASAMBI

APPLICATION

Architectural indoor, direct/indirect suspended light for LED system and fluorescent lamps. Reflected from the ceiling it creates soft and diffused lighting that ensures maximum visual comfort and balanced shadows. It can be installed individually or in a continuous line. Use for general office, banking, retail and educational environments.

FEATURES:

- Die formed 20 gauge cold-rolled steel housing. Flat steel end plate standard. Powder coated for a long life finish. White finish is standard. Die cast aluminum spade end cap optional.
- 2', 3', 4' and 8' individual fixture sections for nominal suspension spacing of 2', 3', 4' and 8'. Using 2', 3', 4' and 8' sections can be joined to form longer length fixtures.
- Die-formed high-reflective white reflector is standard. Optional anodized specular aluminum reflector.
- Uplight and down light distribution.
- Textured matte white polyester powder paint.
- Overlay diffuser option as standard (99% diffusion factor & 73% total transmission).

MOUNTING:

- Provided with a standard 48" length aircraft cable mount kit for suspended mounting.

LED:

- High quality array LEDs.
- LM80
- Color Temperature: 2700/3000/3500/4000/5000 (K)
- Color Rendering Index: > 82.8
- Calculated L70: 122,000 hours
- Reported L70: +60,000 hours

ELECTRICAL:

- High power factor electronic driver, operate from a 120 ~ 277 Vac input range, 50 / 60 Hz.
- Features included over voltage protection, surge, short circuit protection and over load protection.
- Power Factor: typical > 0.95, THD <20, meets Class1 or Class 2 circuit.
- 0-10V dimmable driver as standard, 1%~100%.
- Operating temperature: -4°F (-20°C) ~ 122°F (50°C).
- <ELCU-200>
- Guarantees emergency lighting remains ON or is turned on when power to the control device is lost.
- Interfaces with fire alarm panel or security system.
- "Watchdog" feature allows emergency loads to be controlled in tandem with normal power loads.
- UL listed for use in emergency circuits.

LISTING:

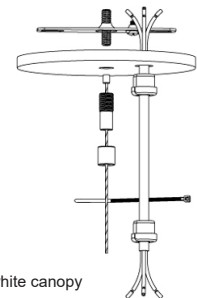
- UL/CUL listed.
- Listed to UL 1598 and UL 8750.
- DLC listed. ⁸
- TITLE 24 Compliant.
- Suitable for damp locations.
- CEC Compliant EM (please contact for more information)
- ARRA compliant (optional).
- BAA compliant (optional).
- Trade Agreements Act compliant (optional).
- 5 years limited warranty.
- 7 or 10 years limited warranty. (optional) ⁵
- Bluetooth Mesh System available, please contact factory for more information.

CONFIGURATIONS

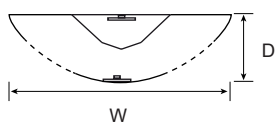
	Model #	Input Watts	Lumen Output (3000K)	Lumen Efficiency (3000K)
2FT	30L	31W	4144.5 lm	132.8 lm/W
	36L	33.8W	4333 lm	128 lm/W
	40L	38.8W	4884.5 lm	126 lm/W
3FT	45L	46.8W	6215 lm	132.8 lm/W
	54L	50.7W	6489.6 lm	128 lm/W
	60L	58.1W	7320.6 lm	126 lm/W
4FT	23L	23W	3054 lm	132.8 lm/W
	60L	62.39W	8289 lm	132.8 lm/W
	72L	67.67W	8666 lm	128 lm/W
	81L	77.53W	9769 lm	126 lm/W
8FT	120L	124.8W	16573.4 lm	132.8 lm/W
	144L	135.3W	17318.4 lm	128 lm/W
	162L	155W	19530 lm	126 lm/W

Multiplier		
3000K	3500K	5000K
1.027627	1.055254	1.110508

Zone	Lumens	% of Luminaire
0-40	147	2.5%
0-60	263	4.4%
0-90	380	6.4%
90-180	5589	93.6%



5" white canopy



All dimensions are in inches (millimeters).

Specifications: SIOP 2', 3', 4', 8'

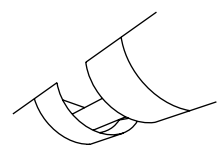
Length: 24, 36, 48, 96
(609 / 914 / 1220 / 2439)
Width: 9 (229)
Depth: 3 (76)
Weight:
SIOP-R4: 14.35 lbs (6.51 kg)
SIOP-R8: 25.57 lbs (11.6 kg)



[Standard]

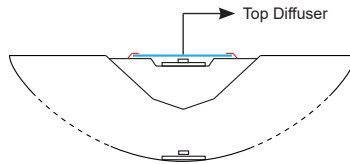


[SPE option]

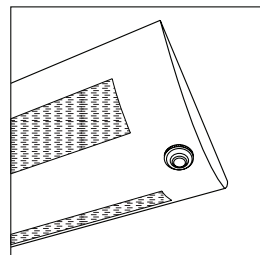


[BSC option]

SIOP LED



[Top Diffuser Drawing]

MS - Integrated Occupancy Sensor
with Hold-Off Daylighting

ORDERING INFORMATION


EXAMPLE: SIOP-4-60L-40K-UNV-X1-AC48

MODEL		ROW	SECTION 1		LED		COLOR TEMP.		CRI		REFLECTOR		TOP DIFFUSER	
SIOP	xx	Increments Total Row Lengths	R2	2' Length	30L	30W LED (2072 lm/ft)	-30K	3000K	(Blank) C9	80+ CRI 90+ CRI ¹⁵	(Blank) SR	White Reflector Specular Reflector	(Blank) PA CA	None Prismatic Acrylic Clear Acrylic
					36L	36W LED (2166 lm/ft)		3500K						
					40L	40W LED (2442 lm/ft)		4000K						
			R3	3' Length	45L	45W LED (2071 lm/ft)		5000K						
					54L	54W LED (2163 lm/ft)								
R4	4' Length	60L	60W LED (2440 lm/ft)											
		23L	23W LED (763 lm/ft)											
		60L	60W LED (2072 lm/ft)											
R8		72L	72W LED (2166 lm/ft)											
		81L	81W LED (2442 lm/ft)											
		120L	120W LED (2071 lm/ft)											
		144L	144W LED (2164 lm/ft)											
		162L	162W LED (2441 lm/ft)											
* Number of circuit(s) should be determined by the customer prior to ordering the continuous run considering the AC input voltage and total run wattage.														
* Contact factory for custom wattage or lumen requirement.														
* Contact factory for custom up/down light distribution.														

VOLTAGE	EM SECTION 2	FIXTURE FINISH	CORD FINISH (for pendant)	CANOPY FINISH (for pendant)
UNV 120-277V (Std.) 120 120V 277 277V 347 347V ¹²	(Blank) None EM 1SE 1 Section 2SE 2 Section xSE x Section	(Blank) Matte White RAL #9003 (Std.) *SV Silver RAL #9022 *BK Black RAL #9011 *CC Custom Color *AMB Anti-Microbial Coating (Matte Skye White)	(Blank) White (Std.) *BKC Black	(Blank) White (Std.) *BC Black Canopy *SC Silver Canopy *CSS Custom Canopy Color (White is Std.)
* Non-standard finish with extra charge. ** Additional charge & set up fee.				

LED DRIVER	OPTIONS
(Blank) 0-10V dim to 1% (Std.) (dim both uplight and downlight simultaneously) SD50 Bi-Level Step dim 50/100 ^{3,4} TDM Triac Dim. (120V only) ES566 eldoLED SOLOdrive Natural Dimming to dark, 0-10V, 100% ~ 0.1% dim EC eldoLED ECOdrive 0-10V natural dim to 1% (Hybrid HydraDrive) LDE1 Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology, 100% ~ 1% dim ELV ELV compatible (reverse-phase or trailing-edge), (120V only) PHSR Philips Xitanium Sensor-Ready, Dali 5%~100% dim. PHDL Philips Xitanium DALI driver, Dim to 5% * Contact factory for custom minimum dimming level set up. (Custom set up is not available with SD50) TRIOT Tridonic IoT ready, 1-100% dim via Smart Module Interface (SMI), automated dimming/lighting controls via Enlighted Sensor Interface LTEA2W Hi-lume 1% 2-wire LED driver (120V forward phase only) BLT Bluetooth Mesh System (contact factory for more information)	EMG8 1296 LUMEN EM Battery Backup (CEC Compliant EM) ² EMG15 2430 LUMEN EM Battery Backup (CEC Compliant EM) ² EMG20 3240 LUMEN EM Battery Backup (CEC Compliant EM) ² EMG25 4050 LUMEN EM Battery Backup (CEC Compliant EM) ² ELCU-200 Fail-to-on Emergency lighting, UL924 ⁷ GTD Bodine Generator Transfer Device GTD10DIM Bodine Generator Transfer Device (0-10VDC Dimmer Override) SPE Spade End Cap BSC Non-lit Continuous Coupler DC Dust Cover ARRA ARRA Compliant BAA BAA(Buy American Act) and BABA(Build America Buy America) compliant TAA Trade Agreements Act compliant AMS Bluetooth Mesh Wireless Sensor. Occupancy/Daylight/0-10V Dimming ¹⁶ DPMS Daylight Dimming Photo Sensor (0-10 VDC Control), (LSR-301-S required if FD-301 is installed) ¹⁴ SO Dimming Wires connected to Sensor Only (available option on FS-205 non-Bluetooth AMS sensor only) ⁶ LSR-301-S Setup Remote Control for DPMS (Required for DPMS)Occupant Remote Control for DPMS LSR-301-P O7W Optional 7 Years Limited Warranty ⁵ O10W Optional 10 Years Limited Warranty ⁵ COC Separated EM feed for City of Chicago code compliance

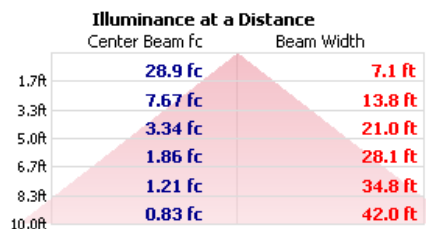
SIOP LED

CEILING TYPE (for pendant)		SUSPENSION LENGTH (for pendant)		LIGHTING CONTROL SYSTEM	
X1	15/16" grid T-bar ceiling	AC48	Adjustable Aircraft Cable Canopy 48"L	LUTRON VIVE	<u><Lutron Vive System Enabled></u>
X2	Hard ceiling	AC96	Adjustable Aircraft Cable Canopy 96"L		 Click Here!
X3	Sloped Hard ceiling	AC120	Adjustable Aircraft Cable Canopy 120"L		<u><Enlighted></u>
X4	9/16" T-bar ceiling	AC150	Adjustable Aircraft Cable Canopy 150"L		Enlighted IoT-Ready Indoor Micro sensor with occupancy/vacancy detection, daylight harvesting, thermal sensing, task tuning, and room and zone control, Bluetooth enabled ^{9, 13}
X5	9/16" Screw Slot ceiling				Enlighted Indoor Micro sensor with occupancy/vacancy detection, daylight harvesting, thermal sensing, task tuning, and room and zone control, Bluetooth enabled (Connected lighting sensor only)
		* Contact factory for custom length. 1 pair (2 aircraft cables) standard for up to 8' length.		RS-WS	Enlighted Room controller providing basic control functions of a standard wall switch with preset dimming capability
				SNS200C	<u><EasySense></u> EasySense Ceiling-mount occupancy sensing, daylight harvesting and task tuning in one device (Must be ordered with PHSR driver) ^{10, 11}
				RS-IR	IR dongle for EasySense control
				IFS105SE	<u><Bluetooth></u> Bluetooth Mesh Wireless Sensor. Occupancy/Daylight/0-10V Dimming
				PPA102S	Bluetooth Powerpack (Consult factory for installation location)
				CASAMBI	Contact factory for CASAMBI READY options

NOTES:

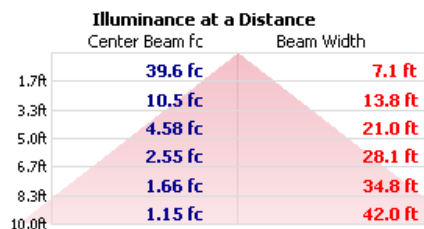
- No need to select, if same as row length and section length.
- EM is installed in last 4' of luminaire sections. Separate section required 2SE or specified. Must specify voltage, not available with 347V. Contact factory for other emergency ballast options.
- Contact factory for custom wattage or lumen requirement.
- Lumens and watts per foot may differ for STEP drivers, consult factory.
- This limited warranty covers electrical parts only and does not apply to labor, equipment lease, or defect from improper installation or operation.
- Dimming wires provided and connected to sensor only, not for dimmer switch. (available with AMS and DPMS option)
- Shipped separately.
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.
- "RS-WS" option can be added if wish to have a wall switch, please see Enlighted Room Controller in the separate attachment.
- See NFC and IR manual in the separate attachment.
- If your phone is not compatible, please order "RS-IR" and follow the manual.
- Refer to Advanced Grouping Datasheet for its default setting and compatible wireless switches.
- 347V cannot work with Emergency Battery Backup.
- Must be ordered either with 0-10V LED driver or TRIOT (IoT-Ready LED driver).
- Automatic on/off is not available. For automatic on/off, additional occupancy sensor is required or a manual on/off switch can be done.
- Lumen per watt is around 15% less than standard CRI (80+).
- With TDM/ELV/SDxx/TDxx: Only available with line-voltage on/off occupancy sensor.

SIOP-4-60L-UNV



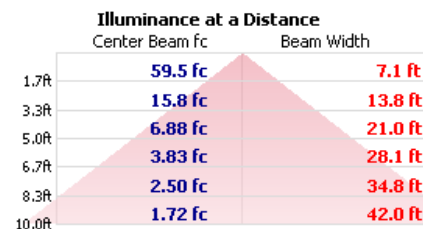
■ Horiz. Spread: 129.0°

SIOP-4-81L-UNV



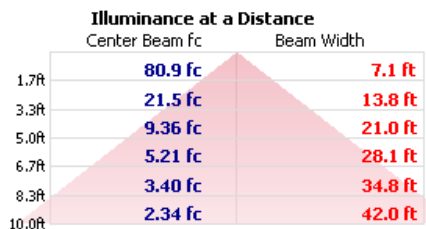
■ Horiz. Spread: 129.0°

SIOP-8-120L-UNV



■ Horiz. Spread: 129.0°

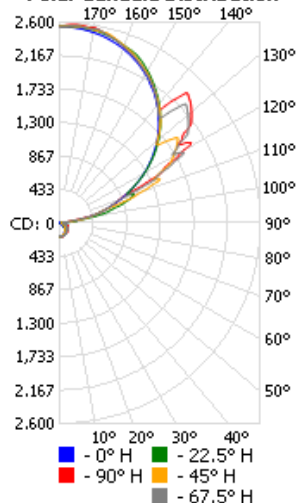
SIOP-8-162L-UNV



■ Horiz. Spread: 129.0°

SIOP LED

Polar Candela Distribution



Street Side (Down)	3.2%
House Side (Down)	3.2%
Total (Down)	6.4%
Street Side (Up)	46.8%
House Side (Up)	46.8%
Total (Up)	93.6%
Total	100%

COMPATIBLE DIMMER SWITCH (TABLE 1)

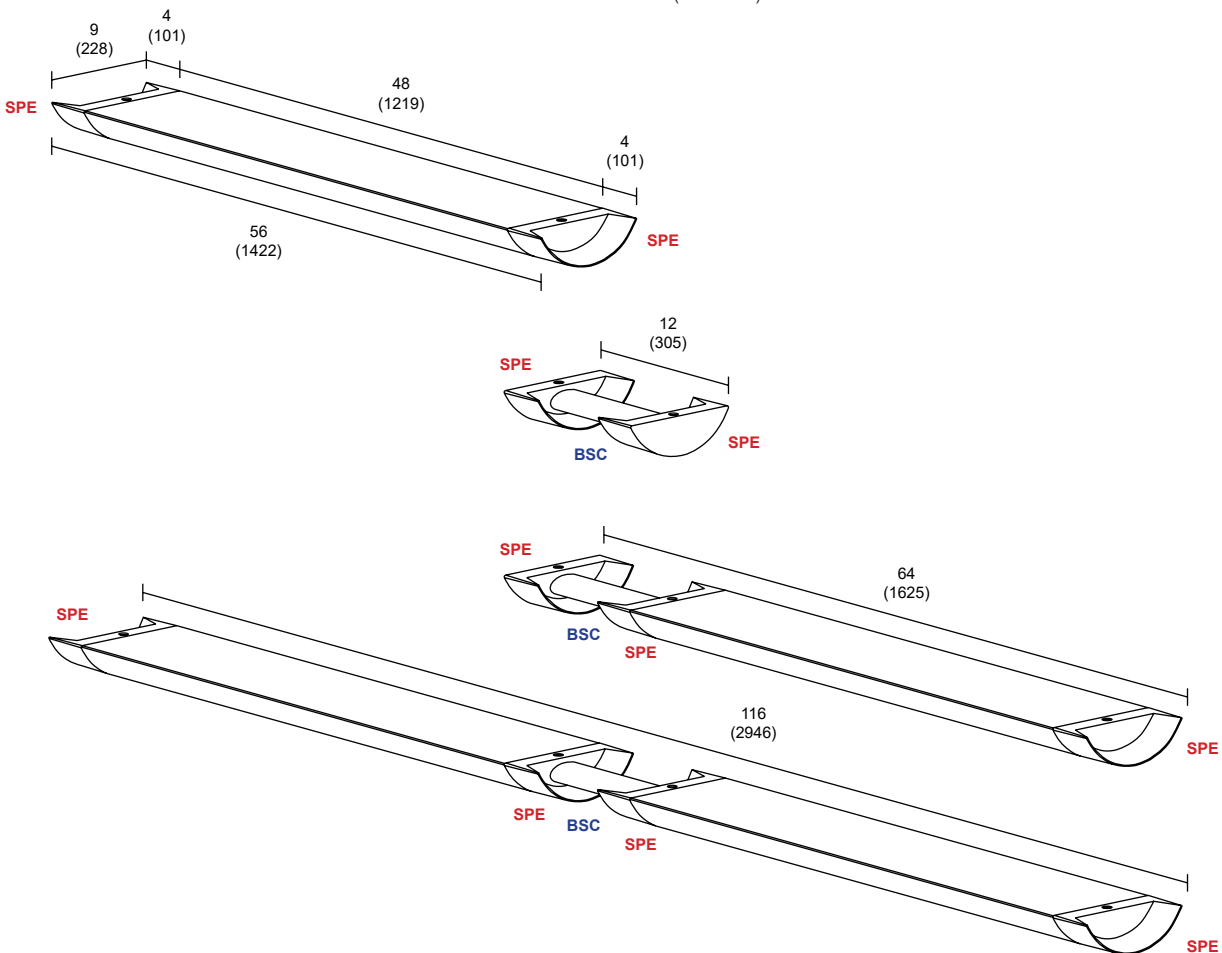
Model #	Brand	Compatible Dimmer Switch	
(Blank)	-	<Leviton>	IllumaTech IP7 series
		<Lutron>	Visit www.lutron.com/advance for a list of dimmers (Mark VII) that will work with this driver.
		<Philips>	Sunrise : SR1200ZTUNV
ES566	eldoLED SOLOdrive	<Busch-Jaeger>	2112U-101
		<Jung>	240-10
		<Leviton>	IllumaTech - IP710-DLX
		<Lightoller Controls>	ZP600FAM120
		<Merten>	5729
		<Pass & Seymour>	CD4FB-W
		<Wattstopper>	DCLV1
		<Sensor Switch>	nIO EZ
		<Synergy>	ISD BC
		<ABB>	SD/S 2.16.1
LDE1	Lutron Hi-lume 1% EcoSystem	<Lutron>	Nova T: NTFTV Diva - DVTv-xx, NFTV GRAFIK Eye: GRX-TVI w GRX3503 Energy Savr Node: QSN-4T16-S TVM2 Module
		<Crestron>	GLX-DIMFLV8, GLXP-DIMFLV8, GLPAC-DIMFLV4-*, GLPAC-DIMFLVV8-*, GLPP-DIMFLVEX-PM, GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM, DIN-AO8, DIN-4DIMFLV4, CLS-EXP-DIMFLV, CLCI-1DIMFLV2EX
LDE1	Lutron Hi-lume 1% EcoSystem	<Lutron>	PowPak Dimming Modules: RMJ-ECO32-DV-B, FCJ/FCJS-ECO ^{1,2} Energi Savr Node (120V only): QSN-1ECO-S, QSN-2ECO-S GRAFIK Eye QS/Homeworks QS control unit (120V only): QSGRJ- E(wireless) QSGR- E Quantum Hub (120V only): QP2- _ _2C/4C/6C/8C Homeworks QS/myRoom Plus power module (120V only): LQSE-2ECO-D
PHSR ³	Philips Xitanium Sensor-Ready	<Illumra>	Single Rocker Self-Powered Light Switch (on/off, dim-up/down) Illumra# ZBT-S1AWH Digi-Key# 1082-1033-ND Dual Rocker Self-Powered Light Switch (on/off, dim-up/down, scene1,2) Illumra# ZBT-S2AWH Digi-Key# 1082-1034-ND
TDM	KEYSTONE	<Lutron>	Diva DV-600P, SkyLark S-600P, Ariadni AY-600P, Ariadni TG-603P, Maestro MA-600 (Digital), Diva CFL/LED DVCL-153P, Satin Colors DVSC-600P-SW
		<Leviton>	6641, IllumaTech IPI06-1LX, ToggleTouch TGI06-1LW (Digital)
ELV	KEYSTONE	<Lutron>	MAELV-600BL (Digital), DVELV-300P, SkyLark SELV-300P
LTEA2W	Lutron Hi-lume 2-wire (120V forward voltage only)	<Lutron>	Visit http://www.lutron.com/TechnicalDocumentLibrary/369543_ENG.pdf for a list of compatible dimmer switches.

NOTES:

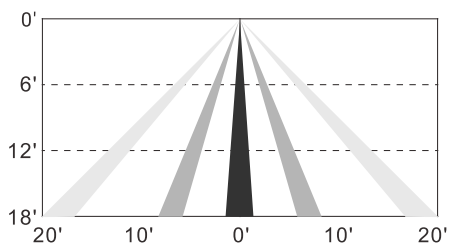
- All devices connected to one FCJ/FCJS-ECO will be controlled together. Devices will dim to the same level as the result of a control command. For more detail on adjusting low-end light level refer to Application Note#556 at www.lutron.com.
- For the Line/Hot (L/H) terminal on the driver, it is preferred not to use the switched hot (red) wire from the control but rather the hot wire directly from the power source.
- Recommended for EasySense System.

SIOP LED

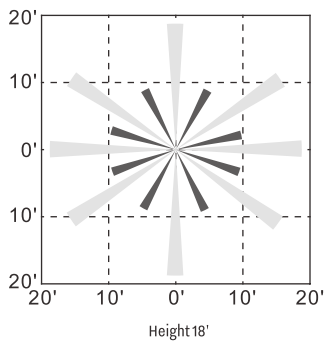
All dimensions are in inches (millimeters).



SIDE VIEW



TOP VIEW



AMS, IFS105SE coverage pattern