

# Linear

FluxStream wrapround

**FSW** 2', 4'. & 8'



Day-Brite / CFI FluxStream LED wraparound is a high performing luminaire delivering smooth diffuse light ideal for light industrial, commercial and residential applications with unparalleled energy efficiency.

Project:	
Location:	
Cat.No:	
Type:	
Lumens:	Qty:
Notes:	

Example: FSW440L840-UNV-DIM

### **Ordering guide**

Series	Length (nominal)	Lumens <sup>2</sup> (nominal)	Color temp. (K)	Voltage	Driver		Options	
FSW			-	-		_		
<b>FSW</b> FluxStream Wraparound	2 2' length	<b>20L</b> 2000 lu <b>30L</b> 3000 lu	imens 3000K	UNV Universal voltage	DIM <sup>11</sup> SDIM <sup>5,6</sup>	Dimming Step dimming	EMLED <sup>4,8,9</sup>	Factory wired Bodine BSL310LP integral emergency pack. Nominal 1100lm
	4 4' length	30L 3000 lu 40L 4000 lu 55L 5500 lu 70L 7000 lu	mens 840 80 CRI, 4000K	120-277V 120 <sup>3</sup> 120V 277 <sup>3</sup> 277V 347 <sup>4</sup> 347V	XDIM <sup>3,5,6</sup>	to 40% input power MarkX phase dimming DALI	ER100 <sup>12,13</sup> GTD/E <sup>12</sup> GTD/SNSR <sup>12,13</sup>	UL924 listed sensor bypass relay, factory installed between driver & sensor UL924 listed Bodine GTD factory installed on driver input UL924 listed Bodine GTD factory installed between driver & sensor
	8¹ 8' length	60L 6000 lt 80L 8000 lt 110L 11000 lt 140L 14000 l	umens umens				SWZCS <sup>10,14</sup> SWZDT <sup>10</sup> RADIO <sup>10</sup> IAOSB <sup>10,14</sup> LSXR10 LSXR10ADC <sup>10</sup> PCSR PCSL	Interact Pro scalable sensor with integral daylight & occupance sensing, advanced grouping with dwell time SpaceWise only sensor, daylighting and occupancy, advanced grouping, with dwell time Integral Interact Pro RF sensor, enables wireless connected lighting control Interact Office advanced wireless sensor bundle, integral SCISOO w/IoT capabilities for enterprise scale projects 120–347V motion sensor, factory installed on end cap 120–347V motion sensor with photocell and hi/lo trim dimmin factory installed on end cap Pull chain switch right, 120V only Pull chain switch left, 120V only

- 1 8' is tandem (2) 4' lenses with single piece 8' body.
- 2 Nominal delivered lumens at 25°C ambient
- 3 XDIM option must be specified with 120V or 277V options only.
- 4 347V with EMLED only available in 8' models.
- 5 Not available in 2' models.
- 6 Not available in 4' 70L or 8' 140L models.
- 7 DALI available up to 80L options only, consult factory for other options.
- 8 EMLED not available on 2' models.
- 9 EMLED on 8' models illuminates 4' section in emergency mode.
- 10 Available with DIM driver option only.
- 11 Integral controls options dimmable to 5% via wireless wall switch (see p.2). Non-integral controls configurations are 0-10V dimmable to 1%
- 12 Must be installed in conjunction with a UL1008 device.
- 13 Must be ordered with an integral sensing option.
- 14 Must order IRT9015 Interact commissioning remote with each system order.
- 15 Failure to properly select the "BAC" suffix could result in you receiving product that is not BAA compliant product with no recourse for an RMA or refund. This BAC designation hereunder does not address (i) the applicability of, or availability of a waiver under, the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies.
- 16 Consult Signify to confirm whether specific accessories are BAA-compliant.

## Accessories<sup>16</sup> (order separately)

- FSWD2L FluxWrap Diffuse 2' replacement lens
- FSWD4L FluxWrap Diffuse 4' replacement lens (order two for 8' models)
- · LSXR10 Low bay PIR occ sensor, 120-277V
- LSXR10ADC Low bay PIR occ with photocell sensor and hi/lo trim dimming, 120-277V
- FSTH Sliding hanger bracket (set of 2)
- FSWJ Continuous row joiner (one per joint)

See last page for details and more options.

# General notes

Many luminaire components, such as reflectors, refractors, lenses, sockets, lampholders, and LEDs are made from various types of plastics which can be adversely affected by airborne contaminants. If sulfur based chemicals, petroleum based products, cleaning solutions, or other contaminants are expected in the intended area of use, consult factory for compatibility.

## SWZCS accessories<sup>16</sup> (order separately)

- IRT9015 handheld remote for grouping and configuration(at least one remote required for any SWZCS installation).
- UID8451/10 Wireless Dimmer Switch Selector
- UID8461/10 Wireless Scene Selector







# 2'. 4' and 8'

#### **Features**

- Compact design for installation in tight spaces
- Frosted acrylic diffuser provides wide light distribution and superior glare control
- Injection molded lens retainers<sup>5</sup> provide positive diffuser retention, and easy toolfree access to LED boards and driver
- 2', 4' and 8' tandem lengths available to accommodate many field applications
- Up to 100,000 hour predicted L70 LED lumen maintenance provides long service life to reduce maintenance costs
- Can be surface mounted on ceilings or walls, or suspended via chain, pendants or cables
- · Wall mountable ADA compliant
- · Ideal for cold applications (-20°C to 25°C)
- FSWJ accessory required for continuous row mounting, one FSWJ at each joint
- 7/8" knock out provided at each end and on base of luminaire. Note: Center knockout is covered and not useable in 4' version with EMLED option.

- Multiple driver options available with 0-10v as standard
- Enclosed lens minimizes penetration of dust, insects, and other debris into the lamp compartment
- 8' tandem unit is two 4' optical assemblies with an aesthetic center mullion on a single full length chassis
- Integral controls options include sensor mounted in one lens retainer.
- Fluxstream luminaires are Designlights Consortium® qualified. Please see the DLC QPL list for exact catalog numbers www.designlights.org/QPL
- 5 year manufacturer's limited warranty.
   Visit signify.com/warranties for complete warranty information

#### Finish

- Baked white acrylic matte high reflectance paint finish
- PAF option gives extra corrosion resistance for canopy or humid applications.

### **Shielding**

· Contoured frosted acrylic lens

#### **Electrical**

- LED boards and drivers are RoHS (Restriction of Hazardous Substances) compliant. Total system life rated at 50,000 hours. Predicted L70 lifetime based on LED manufacturer's supplied LM-80 data and in-situ laboratory testing at 25°C ambient
- Integral emergency driver with EMLED option. To estimate lumen output in emergency, multiply emergency pack wattage by efficacy, then by 1.10

#### **Materials**

 Heavy gauge cold rolled steel housing and LED pan. Polycarbonate injection molded end caps. Profile extruded acrylic diffuser

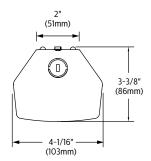
#### Labels

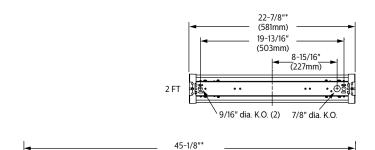
- · cETLus listed
- · Suitable for damp locations

## Performance data

Fixture	Lumens	Wattage	Efficacy
FSW220L840	1904lm	16.6W	114lm/w
FSW230L840	3028lm	28.9W	104lm/w
FSW440L840	3856lm	31.4W	122lm/w
FSW455L840	5339Im	44.5W	119lm/w
FSW470L840	6712Im	58.0W	114lm/w

#### **Dimensions**

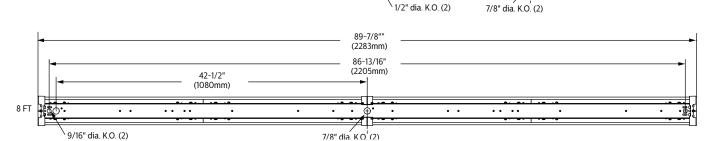




(1146mm)

42-1/16" (1068mm)

20-1/16" (510mm)



<sup>\*</sup>For integral controls option, overall length is 1-3/8" (35mm) longer.

# 2'. 4' and 8'

# Wireless Controls Options SpaceWise DT (SWZDT)

- Standalone daylight and occupancy sensing with advanced grouping, wireless mesh networking and dwell time.
- Commissioning via compatible Android phone and Philips Field App
- Dimming via compatible Zigbee wireless wall switch only (see link below for details)
- Register for the commissioning app at http:// registration.componentcloud.philips.com/ appregistration/
- · Integral sensing options may not be combined
- For more information including recommended switches, refer to the following: –

**SWZDT** - www.usa.lighting.philips.com/systems/lighting-systems/spacewise

# **Emergency Options (ER100)**

- Power Sensing (Factory default) Recommended UL924 option requires unswitched power sense line, absence of voltage on the normal circuit triggers luminaire to 100% output
- Power Interruption Detection (Field option) Detects AC power interruption >30ms triggers 90 minute emergency mode with luminaire at 100% output

# FluxStream wrap shown with integral sensor



# Interact Pro scalable sensor for Foundation, Advanced & Enterprise tiers (SWZCS and an evolution of SpaceWise)

- SWZCS is a connected sensor with integral occupancy and daylight sensing and supports wireless mesh connectivity.
- The sensor works in the Foundation mode (similar to SpaceWise) when configured without a gateway or in an Interact Pro Advanced or Enterprise mode if a compatible gateway is used.
- Interact Pro includes an App, a portal and a broad portfolio of wireless luminaires, lamps and retrofit kits all working on the same system.
- Startup is implemented via Interact Pro App (Android or iPhone) & BlueTooth connectivity.
   The App provides flexibility to choose between a gateway or non gateway mode for setup.
- Setup with the gateway requires wired internet access to the gateway. It is possible to add a gateway at a later point.
- Prepare project configuration steps remotely and use IRT9015 remote onsite to identify and group devices together.
- · Compatible with:
- UID8451/10 wireless dimmer switch
- SWS200 wireless scene switch
- Battery powered IP42 presence sensor OCC sensor IA CM WH 10/1
- Battery powered IP42 presence & daylight sensor OCC-DL sensor IA CM IP42 WH
- Battery powered IP65 presence sensor OCC sensor IA CM IP65 WH
- Battery powered IP65 presence & daylight sensor OCC-DL sensor IA CM IP65 WH
- For more information on Interact Pro visit: www.interact-lighting.com/ interactproscalablesystem

### Radio only sensor (RADIO)

- Integral RADIO only sensor simply enables wireless mesh connectivity to the luminaire without any occupancy or daylight sensing.
- Ideal for applications where sensing functionality is managed by other Interact devices and the luminaire only needs to have wireless connectivity.

# Interact Pro scalable sensor bundles for Enterprise tier

- IAOSB option in addition to occupancy and daylight sensing supports advanced IoT capabilities such as people estimation analysis, desk level temperature & humidity sensing, noise classification, and BLE beacon.
- Compatible with UID8451/10 wireless dimmer switch, SWS200 wireless scene switch, wireless Occ sensor (OCC SENSOR IA CM IP42 WH 10/1) and wireless Day/Occ sensor (OCC MULTI SENSOR IA CM WH 10/1) and wireless Occupancy or Daylight & Occupancy sensors available.
- Use Interact software and insights to increase building efficiency, achieve building wide integration and optimize space through occupancy analytics.
- Requires compatible Gateway and internet connectivity for commissioning.
- For more information, visit: www.interact-lighting.com/office or www.usa.lighting.philips.com/systems/system-areas/offices

# 2', 4' and 8'

### **Photometry**

#### 2' FluxStream LED wraparound, 2000 nominal delivered lumens

**LER - 114** 

Catalog No.	FSW220L840-UNV-DI
Test No.	37658
S/MH	1.3
Lamn Tyne	LED

Lamp Type LED Lumens 1904 Input Watts 17

Comparative yearly lighting energy cost per 1000 lumens – \$2.09 based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

Photometric values based on test performed in compliance with LM-79.

## Candlepower

Angle	End	45	Cross	Back-45
0	559	559	559	559
5	551	558	560	558
15	531	541	545	541
25	490	504	512	504
35	432	452	463	452
45	359	386	401	386
55	278	312	330	312
65	190	233	254	233
75	100	153	176	153
85	23	77	103	77

Degrees	Lumens	% Luminaire
0-30	437	22.9
0-40	718	37.7
0-60	1291	67.7
0-90	1754	92
90-180	153	8.0
0-180	1906	100

Zone	End	45°	Cross
45	8732	7352	7212
55	8094	6557	6466
65	7141	5657	5641
75	5584	4560	4685
85	2667	3099	3553

#### Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)								
pfc =	20							
Ceil		80			70			50
Wall	70	50	30	70	50	30	50	30
RCR								
0	116	116	116	112	112	112	107	107
1	106	100	95	102	96	93	91	88
2	94	86	79	92	83	77	79	73
3	86	76	67	83	72	66	68	63
4	79	67	57	76	65	56	60	54
5 6	72	58	50	69	57	48	55	46
6	67	53	44	65	52	42	48	41
7	61	47	39	59	46	39	45	36
8	57	44	34	56	42	34	40	34
9	54	40	32	52	39	32	38	30
10	50	36	28	48	35	28	34	28

### 2' FluxStream LED wraparound, 3000 nominal delivered lumens

Catalog No. FSW230L840-UNV-DIM

 Test No.
 37662

 S/MH
 1.3

 Lamp Type
 LED

 Lumens
 3028

 Input Watts
 29

Comparative yearly lighting energy cost per 1000 lumens – **\$2.29** based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

Photometric values based on test performed in compliance with LM-79.

### Candlepower

Angle	Ena	45	Cross	Back-45
0	912	912	912	912
5	899	910	914	910
15	866	882	890	882
25	800	824	836	824
35	706	740	756	740
45	587	633	656	633
55	425	478	523	478
65	290	358	388	358
75	153	235	270	235
85	36	119	158	119

#### Light Distribution

umens	% Luminaire
713	23.5
174	38.7
2085	68.8
794	92.2
238	7.8
3032	100
	713 174 2085 2794 238

# LER - 104

Zone	End	45°	Cross
45	14277	12051	11797
55	12361	10058	10244
65	10928	8693	8623
75	8566	7007	7172
85	4110	4810	5437

**Average Luminance** 

#### Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)								
pfc =	20							
Ceil	80			70			50	
Wall	70	50	30	70	50	30	50	30
RCR								
0	116	116	116	113	113	113	107	107
1	106	101	95	102	96	93	92	88
2	95	86	80	92	83	78	80	73
3	86	76	68	83	73	66	69	63
4	80	67	57	77	65	56	61	55
5	72	59	51	69	57	50	55	47
6	67	54	45	65	53	44	50	41
7	63	48	40	59	47	39	45	38
8	57	44	35	56	42	34	40	34
9	54	40	33	52	40	32	38	30
10	51	38	29	48	36	28	34	28

# 2', 4' and 8'

## **Photometry**

### 4' FluxStream LED wraparound, 4000 nominal delivered lumens

**LER - 122** 

Catalog No. FSW440L840-UNV-DIM

 Test No.
 37656

 S/MH
 1.3

 Lamp Type
 LED

 Lumens
 3856

 Input Watts
 31

Comparative yearly lighting energy cost per 1000 lumens – \$1.95 based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

Photometric values based on test performed in compliance with LM-79.

# Candlepower

Angle	End	45	Cross	Back-45
0	1123	1123	1123	1123
5	1107	1117	1124	1117
15	1067	1085	1096	1085
25	987	1014	1033	1014
35	871	913	934	913
45	728	790	813	790
55	557	642	674	642
65	360	451	505	451
75	190	297	341	297
85	43	155	206	155

Degrees	Lumens	% Luminaire
0-30	880	22.8
0-40	1449	37.5
0-60	2612	67.6
0-90	3514	91
90-180	348	9.0
0-180	3862	100

Zone	End	45°	Cross
15	9388	7848	7492
5	8718	7090	6755
5	7439	5791	5742
5	6070	4741	4639
5	3243	3385	3631

#### Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)									
pfc =	20								
Ceil		80			70			50	
Wall	70	50	30	70	50	30	50	30	
RCR									
0	116	116	116	112	112	112	106	106	
1	105	100	94	102	96	93	91	88	
2	94	86	79	92	83	77	79	72	
3	86	76	67	82	72	66	68	63	
4	79	67	57	76	65	56	60	54	
5	72	59	50	69	57	48	55	46	
6	67	53	44	65	52	44	48	41	
7	61	47	40	59	46	39	45	36	
8	57	44	34	56	42	34	40	34	
9	54	40	32	52	39	32	38	30	
10	50	36	28	48	35	28	34	28	

## 4' FluxStream LED wraparound, 5500 nominal delivered lumens

Catalog No. FSW455L840-UNV-DIM

 Test No.
 376555

 S/MH
 1.3

 Lamp Type
 LED

 Lumens
 5339

 Input Watts
 45

Comparative yearly lighting energy cost per 1000 lumens – \$2.00 based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

Photometric values based on test performed in compliance with LM-79.  $\,$ 

#### Candlepower

Angle	End	45	Cross	Back-45
0	1546	1546	1546	1546
5	1523	1538	1549	1538
15	1468	1493	1511	1493
25	1357	1396	1423	1396
35	1199	1256	1286	1256
45	1002	1086	1119	1086
55	776	883	927	883
65	495	663	716	663
75	261	408	468	408
85	60	211	279	211

#### **Light Distribution**

Degrees	Lumens	% Luminaire
0-30	1211	22.7
0-40	1995	37.3
0-60	3602	67.4
0-90	4871	91.1
90-180	477	8.9
0-180	3862	100

# Average Luminance

LER - 119

Zone	End	45°	Cross
45	12919	10790	10317
55	12142	9742	9297
65	10244	8513	8138
75	8365	6504	6366
85	4505	4608	4912

# Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)									
pfc =	20								
Ceil		80			70			50	
Wall	70	50	30	70	50	30	50	30	
RCR									
0	116	116	116	112	112	112	106	106	
1	105	100	95	102	96	93	91	88	
2	94	86	79	92	83	77	79	72	
3	86	76	67	82	72	66	68	61	
4	79	67	57	76	65	56	60	54	
5	72	58	50	69	57	48	55	46	
6	67	53	44	64	52	42	48	41	
7	61	47	39	59	46	39	45	36	
8	57	44	34	56	42	34	40	34	
9	54	40	32	52	39	30	36	29	
10	50	36	28	48	35	28	34	28	

# 2', 4' and 8'

#### 4' FluxStream LED wraparound, 7000 nominal delivered lumens

LER - 114

Catalog No. FSW470L840-UNV-DIM

 Test No.
 37654

 S/MH
 1.3

 Lamp Type
 LED

 Lumens
 6712

 Input Watts
 58

Comparative yearly lighting energy cost per 1000 lumens – **\$2.07** based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

Photometric values based on test performed in compliance with LM-79.

# Candlepower

Angle	End	45	Cross	Back-45
0	1941	1941	1941	1941
5	1914	1930	1941	1930
15	1845	1875	1893	1875
25	1706	1753	1784	1753
35	1506	1576	1611	1576
45	1259	1362	1402	1362
55	975	1106	1161	1106
65	665	830	895	830
75	327	531	608	531
85	75	264	350	264

Degrees	Lumens	% Luminaire
0-30	1520	22.6
0-40	2503	37.2
0-60	4518	67.2
0-90	6130	91.2
90-180	593	8.8
0-180	6723	100

Zone	End	45°	Cross
15	16224	13532	12918
55	15244	12210	11640
55	13762	10665	10181
'5	10461	8469	8275
35	5654	5775	6164

### **Coefficients of Utilization**

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)								
pfc =	20							
Ceil		80			70		5	0
Wall	70	50	30	70	50	30	50	30
RCR								
0	116	116	116	112	112	112	106	106
1	105	100	94	102	96	93	91	88
2	94	86	79	92	83	77	79	72
3	86	76	67	82	72	65	68	61
5	79	67	57	76	65	56	60	54
5	72	58	50	69	57	48	55	46
6	67	53	44	64	52	42	48	41
7	61	47	39	59	46	39	45	36
8	57	44	34	56	42	34	40	33
9	54	40	32	52	39	30	36	29
10	50	36	28	48	35	28	34	28

## Accessories16















Accessory Catalog Code	Description	
FSTH	Sliding hanger bracket (pair)	
SV5F12	12" Stem and canopy kit	White stem and canopy kit, 1/4" trade size (1/2" O.D.) locknuts included. Workwith 9/16" k.O. on base of housing.
SV5F18	18" Stem and canopy kit	
SV5F24	24" Stem and canopy kit	
SV5F36	36" Stem and canopy kit	
SV5F48	48" Stem and canopy kit	
FKR-126	Chain hanger set (pair)	Includes two 5' heavy duty link chains with "V" hooks. Attaches to base of housing.
DACHxx	Adjustable cable hanger kit (single)	Works with 1/4" hole on base of housing or FSTH hanger bracket. <b>xx</b> =cable length in inches, enter 48" to 180" lengths in 12" increments
DACHxx-1-SC	Adjustable cable hanger kit with white straight 18/3 cord (single)	
DACHxx-1-CC	Adjustable cable hanger kit with white coiled 18/3 cord (single)	
DACHxx-2-SC	Adjustable cable hanger kit with white straight 18/4 cord (single)	
DACHxx-2-CC	Adjustable cable hanger kit with white coiled 18/4 cord (single)	
DACHxx-1D-SC	Adjustable cable hanger kit with white straight 18/5 cord with dimming leads (single)	
FSWJ	External continuous row joiner (one per joint).	FSJW accessory required for continuous row mounting
LSXR10	Low bay pir motion sensor (120-277v)	
LSXR10ADC	Low bay pir motion sensor with photocell and hi/lo trim dimming (120-277v)	
FSWD2L	2' Diffuse replacement lens	
FSWD4L	4' Diffuse replacement lens (order two for 8' models)	

<sup>16</sup> Consult Signify to confirm whether specific accessories are BAA-compliant.



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