Day-Brite

CFI

by signify

Linear

FluxStream industrial

FSI 4' and 8'

Control options available

Day-Brite / CFI FluxStream LED industrial 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:

Ordering guide

Example: FSI440L840-UNV-DIM

Series	Length (nominal)	Lumens[2] (nominal)	Color temp. (K)	Voltage	Driver	Options
FSI			–	–	–	
FSI FluxStream industrial	**4** 4' length	**30L** 3000 lumens **40L** 4000 lumens **55L** 5500 lumens **70L** 7000 lumens	**830** 80 CRI, 3000K **835** 80 CRI, 3500K **840** 80 CRI, 4000K **850** 80 CRI, 5000K	**UNV** Universal voltage 120-277V **120**[3] 120V **277**[3] 277V **347**[4] 347V	**DIM**[9] Dimming **SDIM**[5] Step dimming to 40% input power **XDIM**[3,5] MarkX phase dimming **DALI**[6] DALI	**EMLED**[4,7] Factory wired Bodine BSL310LP integral emergency pack. Nominal 1100lm **ER100**[11,12] UL924 listed bypass sensor relay, factory installed between driver and sensor PS/PI (Interact Pro compatible) **ER100/HVPS**[11,12] UL924 listed sensor bypass relay, factory installed between driver & sensor for 347/480 Power Sense (Interact Pro compatible) **ER100/HVPI**[11,12] UL924 listed sensor bypass relay, factory installed between driver & sensor 347/480 Power Interrupt (Interact Pro compatible) **GTD/E**[11] UL924 listed Bodine GTD factory installed on driver input **GTD/SNSR**[11,12] UL924 listed Bodine GTD factory installed between driver & sensor (alternate option to ER100) **SWZCS**[8,13] Interact Pro scalable sensor with integral daylight & occupancy sensing, advanced grouping with dwell time **SWZDT**[8] SpaceWise sensor, daylighting and occupancy, advanced grouping, with dwell time **RADIO**[8] Integral Interact Pro RF sensor, enables wireless connected lighting control **SWZCSH**[10,13] Interact Pro scalable high bay sensor with integral daylight & occupancy sensing, advanced grouping with dwell time for high mounting heights **IAOSB**[8,13] Interact Pro wireless sensor with occupancy, daylight, and environmental sensing capabilities **LSXR10** 120-347V motion sensor, factory installed on end cap **LSXR10ADC**[8] 120-347V motion sensor with photocell and hi/lo trim dimming, factory installed on end cap **PAF** Paint after fabrication for extra corrosion resistance (white) **BK** Matte black paint color **ST** Satin aluminum paint color **BAC**[14] Meets the requirements of the Buy American Act of 1933 (BAA)
	8[1] 8' length	**60L** 6000 lumens **80L** 8000 lumens **110L** 11000 lumens **140L** 14000 lumens				

1 8' is tandem (2) 4' lenses with single piece 8' body.
2 Nominal delivered lumens at 25°C ambient.
3 XDIM option only available with 120V.
4 347V with EMLED only available in 8' models.
5 Not available in 4' 70L model or 8' 140L model.
6 DALI available up to 80L models only, consult factory for other options.
7 EMLED on 8' models illuminates 4' section in emergency mode.
8 Available with DIM driver option only.
9 Integral controls options dimmable to 5% via wireless wall switch. Non-integral controls configurations are 0-10V dimmable to 1%.
10 High bay motion detector. Motion sensing zone is extremely limited if used below 15' mounting height
11 Must be installed in conjunction with a UL1008 device.
12 Must be ordered with an integral sensing option.
13 Must order IRT9015 Interact commissioning remote with each system order.
14 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.
15 Consult Signify to confirm whether specific accessories are BAA-compliant.

Accessories[15] (order separately)

- **FSID4L –** 4' Diffuse replacement lens (order two for 8' models)
- **LSXR10** - Low bay PIR motion sensor, 120-277V
- **LSXR10ADC** - Low bay PIR motion sensor with photocell and hi/lo trim dimming, 120-277V
- **FSIWG4** - 4' Wire guard (order two for 8' models)
- **FSTH** - Sliding hanger bracket (set of 2)
- (See last page for details and more options)

SWZCS accessories[15] (order separately)

- **IRT9015 –** handheld remote for grouping and configuration(at least one remote required for any SWZCS installation).

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.

PAF (Paint after fabrication) option is required for all products that will be used in a damp or humid location, such as under a canopy or covered parking area.

interact ready.

FSI FluxStream LED industrial

4' and 8'

Features

- Compact design for installation in tight spaces.
- Frosted acrylic diffuser provides wide light distribution and superior glare control
- Diffuser and LED plate snap into place allowing tool-free access to LED boards and driver.
- 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)
- Continuous row mounting using standard end caps. No extra parts needed.
- 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 LED compartment.
- 8' tandem unit is two 4' optical assemblies with a center mullion on a single full length chassis.
- Integral controls options include sensor mounted in control module extension mounted on fixture end (see dimension drawing).
- 5 year manufacturer's limited warranty Visit www.signify.com/warranties for complete warranty information.

Finish

- Baked white acrylic matte high reflectance paint finish.
- PAF (Paint after fabrication) option, which is required for all products that will be used in damp or humid locations, such as a canopy or covered parking area, provides extra corrosion resistance.

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.
- Integral emergency driver with EMLED option. To estimate lumen output in emergency mode, multiply emergency pack wattage by efficacy, then by 1.10.

Materials

- Heavy gauge cold rolled steel housing, LED plate, and end caps

Labels

- cETLus listed
- Suitable for damp locations

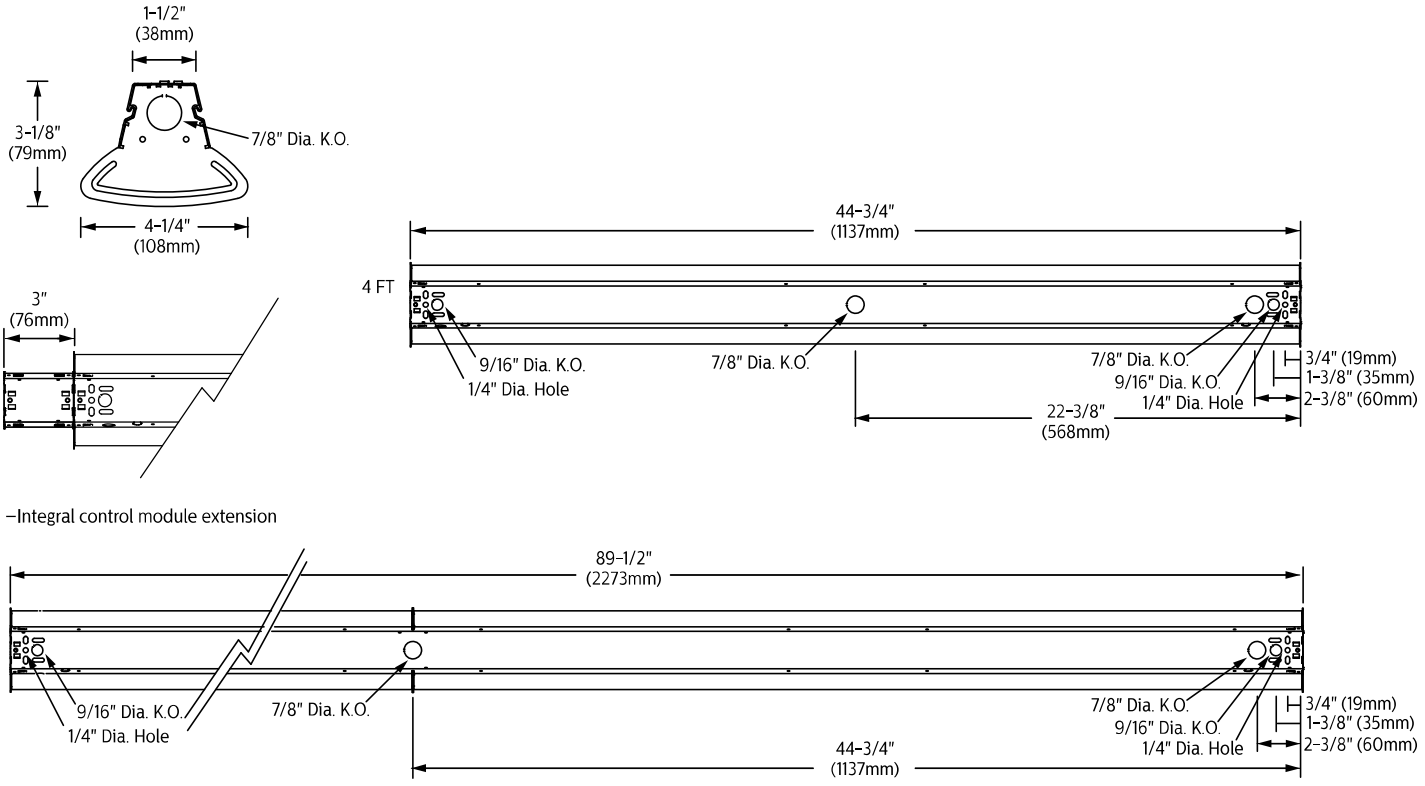
Performance data

Fixture	Lumens	Wattage	Efficacy
FSI440L840	4169lm	31W	134lm/w
FSI455L840	5826lm	45W	131lm/w
FSI470L840	7302lm	58W	126lm/w

Ambient temperature data

Configuration	Ambient
FSI470L	-20°C to 30°C
FSI8110L	-20°C to 35°C
FSI8140L	-20°C to 25°C
EMLED option	Minimum 0°C
All others	-20°C to 40°C

Dimensions



FSI FluxStream LED industrial

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 industrial shown with integral sensor

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

- SWZCS/SWZCSH 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:
    - 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
    - LCN3110: Battery powered IP65 presence sensor, OCC sensor IA CM IP65WH
    - LCN3120: 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, SWS200 wireless scene switch and Interact Ready wireless battery powered sensors.
- 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

FSI FluxStream LED industrial

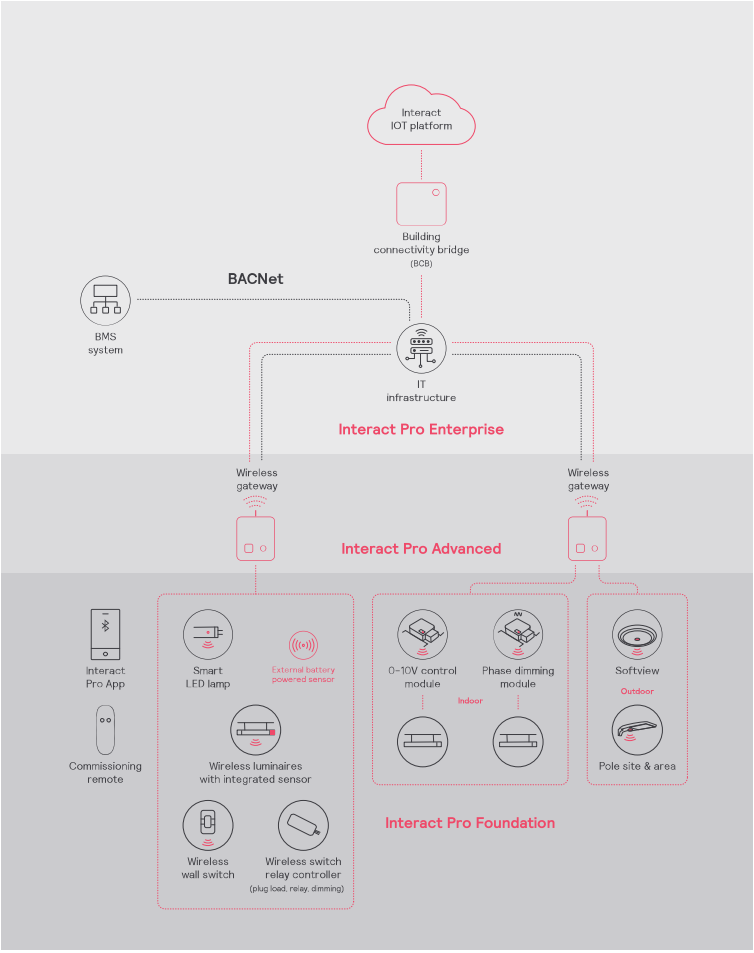
4' and 8'

	Interact Pro scalable system		
			
	Foundation	Advanced	Enterprise
Dimming, grouping, and zoning	✓	✓	✓
Bluetooth and ZigBee enabled	✓	✓	✓
Motion sensing and daylight harvesting	✓	✓	✓
Integration with 0–10V and phase dimming fixtures	✓	✓	✓
Code compliance	✓	✓	✓
Granular dimming and dwell time	✓	✓	✓
Energy reporting and monitoring		✓	✓
Scheduling		✓	✓
Demand response		✓	✓
BMS integration (BACnet)			✓
Floor plan visualization			✓
IoT sensors for wellness			✓
IoT Apps for productivity			✓

Currently supported maximum system size

To be able to design the lighting system correctly for the customer, it is important to know the prime characteristics of the system, its possibilities and limitations.

System level	
Total number of gateways	Unlimited
Total number of devices	200 per network
• luminaires with integrated sensors	150
• smart TLEDS	150
Total number of ZGP devices (sensors and switches)	50
• sensors	30
• switches	50
• zones and groups	64
Group level	
Recommended number of lights	40 (recommended 25)
Number of ZGP devices	5
Number of scenes	16



FSI FluxStream LED industrial

4' and 8'

Photometry

4' FluxStream LED industrial, 4000 nominal delivered lumens — LER – 134

Catalog No. FSI440L840-UNV-DIM
Test No. 37260
S/MH 1.2
Lamp Type LED
Lumens 4169
Input Watts 31

Comparative yearly lighting energy cost per 1000 lumens – **$1.79** 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	1354	1354	1354	1354
5	1329	1344	1355	1344
15	1273	1287	1297	1287
25	1161	1173	1185	1173
35	1005	1021	1035	1021
45	822	850	867	850
55	623	657	688	657
65	389	432	480	432
75	196	257	306	257
85	38	116	170	116

Light Distribution

Degrees	Lumens	% Luminaire
0-30	1032	24.8
0-40	1671	40.1
0-60	2909	69.8
0-90	3735	89.6
90-180	434	10.4
0-180	4169	100

Average Luminance

Zone	End	45°	Cross
45	9841	8203	7856
55	9067	7154	6893
65	7513	5586	5569
75	5919	4246	4386
85	2778	2767	3295

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	117	117	117	113	113	113	105	105
1	106	101	96	102	97	93	92	88
2	95	88	81	93	84	79	80	75
3	88	77	68	83	75	67	69	64
4	80	68	59	77	66	57	63	56
5	73	60	52	70	58	51	56	48
6	68	55	46	66	54	45	51	44
7	63	50	40	60	48	40	46	39
8	58	46	36	56	44	35	41	34
9	55	41	34	53	40	33	39	32
10	52	39	31	50	38	30	36	29

4' FluxStream LED industrial, 5500 nominal delivered lumens — LER – 131

Catalog No. FSI455L840-UNV-DIM
Test No. 37263
S/MH 1.2
Lamp Type LED
Lumens 5826
Input Watts 45

Comparative yearly lighting energy cost per 1000 lumens – **$1.83** 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	1890	1890	1890	1890
5	1857	1877	1895	1877
15	1779	1797	1812	1797
25	1622	1639	1655	1639
35	1403	1426	1443	1426
45	1146	1186	1207	1186
55	867	917	955	917
65	580	643	698	643
75	273	355	420	355
85	52	157	227	157

Light Distribution

Degrees	Lumens	% Luminaire
0-30	1441	24.7
0-40	2332	40
0-60	4061	69.7
0-90	5235	89.9
90-180	591	10.1
0-180	5826	100

Average Luminance

Zone	End	45°	Cross
45	13940	11633	11115
55	12829	10137	9731
65	11386	8444	8240
75	8350	5950	6110
85	3879	3801	4477

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	117	117	117	113	113	113	105	105
1	106	101	97	102	98	94	92	89
2	96	88	81	93	85	79	80	75
3	88	77	69	84	75	67	70	64
4	80	68	60	77	66	58	63	56
5	74	61	52	71	59	51	56	49
6	68	55	46	66	54	45	51	43
7	63	50	41	61	49	40	46	39
8	59	45	37	57	44	36	42	35
9	55	42	34	53	41	33	39	32
10	52	38	31	50	38	30	36	29

4' FluxStream LED industrial, 7000 nominal delivered lumens — LER – 126

Catalog No. FSI470L840-UNV-DIM
Test No. 37266
S/MH 1.2
Lamp Type LED
Lumens 7302
Input Watts 58

Comparative yearly lighting energy cost per 1000 lumens – **$1.90** 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	2356	2356	2356	2356
5	2316	2341	2352	2341
15	2217	2243	2251	2243
25	2021	2044	2060	2044
35	1749	1780	1800	1780
45	1431	1482	1508	1482
55	1083	1146	1196	1146
65	723	806	878	806
75	341	446	555	446
85	65	197	292	197

Light Distribution

Degrees	Lumens	% Luminaire
0-30	1796	24.6
0-40	2910	39.8
0-60	5070	69.4
0-90	6561	89.8
0-180	741	10.2
90-180	7302	100

Average Luminance

Zone	End	45°	Cross
45	17123	14302	13665
55	15774	12468	11991
65	13989	10409	10192
75	10286	7355	7951
85	4793	4693	5669

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	117	117	117	113	113	113	105	105
1	106	101	97	102	98	94	92	88
2	96	88	81	93	85	79	80	75
3	88	77	69	84	75	67	70	64
4	80	68	60	77	66	58	63	56
5	74	61	52	71	59	51	56	49
6	68	55	46	66	53	45	51	43
7	63	50	41	61	48	40	46	39
8	59	45	37	57	44	36	42	35
9	55	42	33	53	41	33	39	32
10	51	38	31	50	37	30	36	29

FSI FluxStream LED industrial

4' and 8'

Accessories[15]

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. Works with 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. **xx**=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)	
LSXR10	Low bay pir motion sensor (120-277v)	
LSXR10ADC	Low bay pir motion sensor with photocell and hi/lo trim dimming (120-277v)	
FSIWG4	4' Wire Guard (Order two for 8' models)	
FSID4L	4' Diffuse Replacement Lens (Order two for 8' models)	

15 Consult Signify to confirm whether specific accessories are BAA-compliant.

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