

# PHILIPS

## Recessed

### EvoKit LED Retrofit Kits Gen 3

2'x4'



Project: \_\_\_\_\_

Location: \_\_\_\_\_

Cat.No: \_\_\_\_\_

Type: \_\_\_\_\_

Lamps: \_\_\_\_\_ Qty: \_\_\_\_\_

Notes: \_\_\_\_\_

Philips EvoKit LED Retrofit Kit is an energy efficient LED alternative to traditional linear fluorescent troffers. Not only does it offer energy savings<sup>1</sup>, it also helps reduce maintenance costs due to its long lifetime. Simple construction helps decrease the installation time meaning you can have an LED solution in your ceiling in just minutes.

#### Ordering guide (continued on next page)

Product Number	Description	Watts	Volts	Lumen Maintenance (Hrs.) <sup>2</sup>	Approx. Lumens <sup>3</sup>	CRI	Color Temperature (K)
<b>2'x4' Stock SKUs</b>							
506881	EvoKit 2x4 P 36L 31W 840 2 0-10 7 G3	31	120-277	70,000	3600	80	4000
506865	EvoKit 2x4 P 36L 32W 835 2 0-10 7 G3	32	120-277	70,000	3600	80	3500
507079	EvoKit 2x4 P 42L 39W 840 5 Mk10 7 G3	39	277	70,000	4219	80	4000
507038	EvoKit 2x4 P 42L 36W 840 2 0-10 7 G3	36	120-277	70,000	4200	80	4000
506964	EvoKit 2x4 P 42L 38W 835 2 0-10 7 G3	38	120-277	70,000	4200	80	3500

See footnotes on page 3.



# EvoKit LED Retrofit Kit 2'x4'

## Ordering guide (continued from previous page)

Product Number	Description	Watts	Volts	Lumen Maintenance (Hrs.) <sup>2</sup>	Approx. Lumens <sup>3</sup>	CRI	Color Temperature (K)
<b>2'x4' Made to Order SKU's<sup>1</sup></b>							
507335	EvoKit 2x4 P 36L 31W 840 6 0-10 7 G3	31	347	70,000	3600	80	4000
507236	EvoKit 2x4 P 36L 31W 840 2 STEP 7 G3**	31	120-277	70,000	3492	80	4000
506873	EvoKit 2x4 P 36L 31W 850 2 0-10 7 G3	31	120-277	70,000	3600	80	5000
507327	EvoKit 2x4 P 36L 32W 835 6 0-10 7 G3	32	347	70,000	3600	80	3500
506915	EvoKit 2x4 P 36L 32W 840 1 Mk10 7 G3	32	120	70,000	3492	80	4000
506931	EvoKit 2x4 P 36L 32W 840 5 Mk10 7 G3	32	277	70,000	3492	80	4000
507228	EvoKit 2x4 P 36L 33W 835 2 STEP 7 G3**	33	120-277	70,000	3615	80	3500
506907	EvoKit 2x4 P 36L 34W 835 1 Mk10 7 G3	34	120	70,000	3615	80	3500
506923	EvoKit 2x4 P 36L 34W 835 5 Mk10 7 G3	34	277	70,000	3615	80	3500
506956	EvoKit 2x4 P 42L 36W 850 2 0-10 7 G3	36	120-277	70,000	4200	80	5000
506451	EvoKit 2x4 P 42L 37W 840 2 SR 7 G3	37	120-277	70,000	4200	80	4000
507251	EvoKit 2x4 P 42L 37W 840 2 STEP 7 G3	37	120-277	70,000	4219	80	4000
507368	EvoKit 2x4 P 42L 37W 840 6 0-10 7 G3	37	347	70,000	4200	80	4000
506717	EvoKit 2x4 P 42L 37W 850 2 SR 7 G3	37	120-277	70,000	4200	80	5000
507350	EvoKit 2x4 P 42L 38W 835 6 0-10 7 G3	38	347	70,000	4200	80	3500
506477	EvoKit 2x4 P 42L 39W 835 2 SR 7 G3	39	120-277	70,000	4200	80	3500
507244	EvoKit 2x4 P 42L 39W 835 2 STEP 7 G3	39	120-277	70,000	4266	80	3500
507053	EvoKit 2x4 P 42L 39W 840 1 Mk10 7 G3	39	120	70,000	4219	80	4000
507046	EvoKit 2x4 P 42L 41W 835 1 Mk10 7 G3	41	120	70,000	4266	80	3500
507061	EvoKit 2x4 P 42L 41W 835 5 Mk10 7 G3	41	277	70,000	4266	80	3500
507384	EvoKit 2x4 P 47L 41W 840 6 0-10 7 G3	41	347	70,000	4700	80	4000
507426	EvoKit 2x4 P 47L 42W 840 2 SR 7 G3	42	120-277	70,000	4700	80	4000
507277	EvoKit 2x4 P 47L 42W 840 2 STEP 7 G3	42	120-277	70,000	4716	80	4000
506758	EvoKit 2x4 P 47L 42W 850 2 SR 7 G3	42	120-277	70,000	4700	80	5000
507129	EvoKit 2x4 P 47L 42W 840 2 0-10 7 G3	42	120-277	70,000	4700	80	4000
507020	EvoKit 2x4 P 47L 42W 850 2 0-10 7 G3	42	120-277	70,000	4700	80	5000
507418	EvoKit 2x4 P 47L 43W 835 2 SR 7 G3	43	120-277	70,000	4528	80	3500
507103	EvoKit 2x4 P 47L 43W 835 2 0-10 7 G3	43	120-277	70,000	4700	80	3500
507376	EvoKit 2x4 P 47L 43W 835 6 0-10 7 G3	43	347	70,000	4700	80	3500
507152	EvoKit 2x4 P 47L 44W 840 1 Mk10 7 G3	44	120	70,000	4716	80	4000
507178	EvoKit 2x4 P 47L 44W 840 5 Mk10 7 G3	44	277	70,000	4716	80	4000
507269	EvoKit 2x4 P 47L 45W 835 2 STEP 7 G3	45	120-277	70,000	4797	80	3500
507137	EvoKit 2x4 P 47L 47W 835 1 Mk10 7 G3	47	120	70,000	4797	80	3500
507160	EvoKit 2x4 P 47L 47W 835 5 Mk10 7 G3	47	277	70,000	4797	80	3500

See footnotes on page 6.

# EvoKit LED Retrofit Kit 2'x4'

## Application

- A highly efficient, visually comfortable, architecturally styled LED retrofit kit designed to replace recessed linear fluorescent troffers.
- Unique modular design offers refreshing new look in the ceiling when compared to traditional fluorescent luminaires.
- Single light bar combined with slanted troffer helps reflect light to reduce glare and provide uniform light distribution making it ideal for applications such as offices, schools, healthcare and retail.
- Excellent color rendering with a CRI above 80.
- Extremely high efficacies up to 118 lumens per watt.
- LEDs are an excellent source for use with controls since dimming or frequent switching does not degrade the performance or life of the source.
- Designed for use with Standard Grid (NEMA "G") or Narrow Grid (NEMA "NFG") ceiling T-Grids.
- High efficiency source and luminaire design help significantly reduce energy consumption and more easily comply with known energy codes.
- Helps meet regulation requirements such as ASHRAE 90.1 and Title 24 when matched with suitable controls.

## Construction/Finish

- Simple design allows for quick installation (under 4 minutes) in existing luminaire without the need to break the ceiling plenum.
- Constructed using galvanized steel which helps fight rust and makes for more durable product.
- Minimum depth of only 3" necessary to allow proper clearance and installation of the EvoKit.
- Retrofit kit is powder coated after fabrication with high quality, durable finish to ensure no unfinished edges and avoid future potential of corrosion.
- Components fit together easily without the need for tools during installation.

## Electrical

- Multiple driver options available
  - 0-10V dimming satisfies universal voltage requirements.
  - Mark10 leading edge dimming offers ability to dim without pulling neutral wires making it compatible with more existing systems.
  - Step dimming to 40%.
- 5 year limited warranty includes all components of the retrofit kit, including driver, LED board and nonelectrical components."

- Listed with UL and Design Lights Consortium to ensure quality performance and safety standards are met. • High efficiency LEDs have a minimum 70,000 hour rated life (L<sub>70</sub>).

## Enclosure

- Diffuser requires no frames or fasteners and can be easily removed from below without tools if needed.

## Accessories

- Earthquake cables available for extra securement within the ceiling for areas prone to extreme conditions.
- Suitable for use with Philips 503441 emergency backup.
- Suitable for use with a wide range of control systems.
- Appropriate for new construction when used with standard listed lensed or parabolic troffers.

Prod. No.	Description
502435	EvoKit Accessory Earthquake Cable 317mm
502583	EvoKit 2x4 Replacement Lens
503441	EvoKit Field Installed Emergency Battery Backup

## EvoKit with new SimpleSet Technology for wireless lumen level programming

EvoKit with new SimpleSet Technology allows the maximum lumen level to be set prior to installation using a smartphone-based app without requiring power to the luminaire. Available in the 0-10V and SR versions only. The app can be downloaded at Google Play. Please contact your Philips representative for the current list of approved Android smartphones. Distributors can set lumen levels prior to shipping, and contractors can set lumen levels prior to installation. Lumen level is quickly and easily set in two steps:



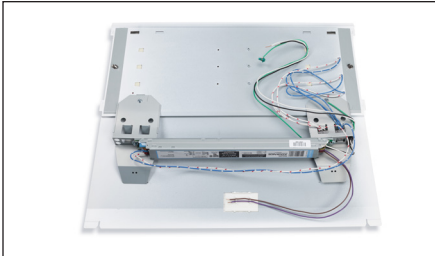
Step 1: Place the smartphone next to the NFC antenna on the driver.

Step 2: Follow the on-screen instructions.

# EvoKit LED Retrofit Kit 2'x4'

## EvoKitSR with Xitanium SR for connected lighting solutions

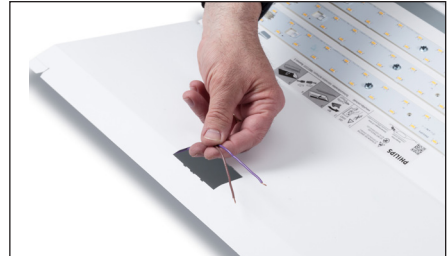
EvoKitSR is a new platform that allows users to choose different control platforms to suit their needs and budget; from simple occupancy and daylight sensing to cloud-connected data-reporting sensing. This empowers users to fine-tune their energy use for reduced energy costs. Contact your Philips representative for a current list of approved sensors. Sensors are connected in the field with just a few simple steps:



Step 1: EvoKitSR is shipped with a plate covering the sensor hole. There are two wires secured to the back of the plate.



Step 2: The plate can be removed before or after you install EvoKit SR. Just gently slide the plate to one end and remove.



Step 3: Remove the two wires that were secured to the back of the plate.



Step 4: Take these two wires and insert them into the sensor. They are not polarity sensitive.



Step 5: Insert the sensor back into the hole. The sensor may or may not require a socket.

## SpaceWise Technology 4.1 (SWZ) – To be purchased separately

- Optional SpaceWise automated wireless technology via the unique Philips Evokit SpaceWise Accessory provides integrated occupancy and daylight harvesting for additional control and energy savings. Requiring no system re-wiring, SpaceWise technology is ideal for retrofit applications.
- Occupancy and daylight sensors are integral to each luminaire. Luminaires in large rooms and open plan areas are grouped together up to a maximum of 50 using a handheld remote so room lighting turns on at first sign of occupancy.
- Upon first entry, grouped luminaires brighten up gently to a background level. Once occupants arrive at their workstations,

luminaires in the immediate area brighten up to full illumination and will dim down when no presence is detected. Grouped luminaires will dim to off when no presence is detected in the group.

- Daylight sensing is automatic and re-calibration occurs daily when luminaires turn on.
- The SpaceWise Accessory, when combined in the field with any standard 0-10 dimmable Evokit, will transform the kit into a SpaceWise-enable retrofit kit. There are two variations of the accessory, one for the Evokit 2x4 and on for the Evokit 2x2.



EvoKit			
Model	Initial Lumens	Input Power	Lumens per Watt
EvoKit 2x4 P 42L 36W 840 2 0-10 7 G3 (507038)	4200	36	116

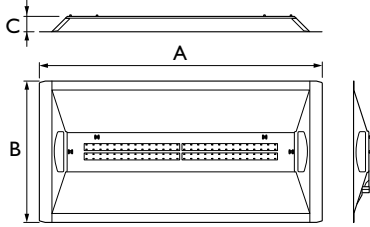
Prod. No.	12NC	Description
503615	929000726013	EvoKit 2x4 SpaceWise Accessory
504449	913700359103	Spacewise Programming Tool
455436	913700364403	Switch/Dimmer
455428	913700364203	4 position scene selector

EvoKit with Spacewise (SWZ)			
Model	Initial Lumens	Input Power Max Output (W)	Input Power Background Output (W)
High Power Setting (120/277V)	4200	36	12
Medium Power Setting (120/277V)	3696	32	11
Low Power Setting (120/277V)	3234	28	10
Minimum Power Setting (120/277V)	2772	24	8

# EvoKit LED Retrofit Kit 2'x4'

## Dimensions

A Face Plate Length	B Face Plate Width	C Height
47.83"	23.9"	2.95"



## Energy Saving Solution – 2'x4'

Present Wattage	85 W
x Annual Operating Hours	4,380 hrs
	= 372,300 watt-hours
÷1,000	= 372.3 kWh per year
x kWh rate of \$0.11	= \$40.95 per year
x 125 fixtures	= \$5,119.13 annual energy cost per space

Present Wattage	36 W
x Annual Operating Hours	4,380 hrs
	= 157,680 watt-hours
÷1,000	= 157.68 kWh per year
x kWh rate of \$0.11	= \$17.34 per year
x 125 fixtures	= \$2,167.50 annual energy cost per space

**Total Estimated Annual Savings<sup>◇</sup> = \$2,951.63**

◇ Based on 125 fixtures per space operating 4,380 hours a year. 125 fixtures is roughly equivalent to a 10,000 square foot space. kWh rates will vary.

## 2'x4' EvoKit, P 36L 32W 835 2 0-10 7 G3, 3473 delivered lumens

Catalog No.	
Test No.	x436L
S/MH	1.2
Lamp Type	LED
Ballast	
Lumens/Watt	109
Input Watts	32

Comparative yearly lighting energy cost per 1000 lumens - \$2.20 based on 3000 hours and \$0.08/kWh

The photometric results were obtained in the Design Lights Consortium Test Lab which is NVLAP accredited by the National Institute of Standards and Technology

Photometric values based on tests performed in compliance with LM-79

Candlepower				
Angle	End	45	Cross	Back-45
0	1239	1239	1239	1239
5	1220	1232	1252	1229
15	1167	1179	1199	1173
25	1062	1075	1096	1067
35	913	932	957	921
45	733	764	800	751
55	550	596	652	585
65	369	446	511	436
75	203	296	344	286
85	65	112	118	102

Coefficients of Utilization									
EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)									
pcc	80			70			50		
pw	70	50	30	70	50	30	50	30	
RCR									
0	118	118	118	115	115	115	111	111	
1	108	103	97	105	101	95	95	93	
2	97	89	81	94	86	81	83	78	
3	89	78	69	86	77	68	73	67	
4	81	68	59	79	68	58	65	57	
5	75	61	53	72	60	52	58	51	
6	68	56	46	67	55	46	53	45	
7	64	51	41	63	50	40	47	40	
8	59	46	38	57	45	36	44	36	
9	56	41	34	55	41	34	40	33	
10	53	39	30	51	39	30	38	30	

Light Distribution			Average Luminance			
Degrees	Lumens	% Luminaire	Angle	End	45°	Cross
0-30	942	27.1	45	1781	1856	1944
0-40	1522	43.8	55	1647	1785	1954
0-60	2638	76.0	65	1500	1814	2077
0-90	3473	100	75	1344	1963	2287
			85	1271	2198	2329

## 2'x4' EvoKit, P 42L 39W 835 2 SR 7 G, 4087 delivered lumens

Catalog No.	
Test No.	x442L
S/MH	1.2
Lamp Type	LED
Ballast	
Lumens/Watt	104
Input Watts	39

Comparative yearly lighting energy cost per 1000 lumens - \$2.31 based on 3000 hours and \$0.08/kWh

The photometric results were obtained in the Design Lights Consortium Test Lab which is NVLAP accredited by the National Institute of Standards and Technology

Photometric values based on tests performed in compliance with LM-79

Candlepower				
Angle	End	45	Cross	Back-45
0	1466	1466	1466	1466
5	1442	1458	1482	1455
15	1381	1394	1417	1388
25	1256	1271	1294	1260
35	1082	1100	1125	1087
45	869	900	939	885
55	648	700	762	686
65	433	522	597	510
75	238	345	404	335
85	76	130	141	122

Coefficients of Utilization									
EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)									
pcc	80			70			50		
pw	70	50	30	70	50	30	50	30	
RCR									
0	118	118	118	115	115	115	111	111	
1	108	103	97	105	101	95	95	93	
2	97	89	81	94	86	81	83	78	
3	89	78	69	86	77	68	73	67	
4	81	68	59	79	68	59	65	57	
5	75	61	53	72	60	52	58	51	
6	68	56	46	67	55	46	53	45	
7	64	51	41	63	50	40	47	40	
8	59	46	38	57	46	36	44	36	
9	56	42	34	55	41	34	40	33	
10	53	39	30	51	39	30	38	30	

Light Distribution			Average Luminance			
Degrees	Lumens	% Luminaire	Angle	End	45°	Cross
0-30	1114	27.3	45	2111	2187	2281
0-40	1798	44.0	55	1940	2096	2283
0-60	3109	76.1	65	1760	2121	2427
0-90	4087	100	75	1582	2291	2682
			85	1500	2559	2771

# EvoKit LED Retrofit Kit 2'x4'

## 2'x4' EvoKit, P 47L 43W 835 2 0-10 7 G3, 4689 delivered lumens

Catalog No. x447L  
 Test No. 1.2  
 S/MH LED  
 Lamp Type LED  
 Ballast 101  
 Lumens/Watt 47  
 Input Watts 47

Comparative yearly lighting energy cost per 1000 lumens - \$2.38 based on 3000 hours and \$0.08/kWh

The photometric results were obtained in the Design Lights Consortium Test Lab which is NVLAP accredited by the National Institute of Standards and Technology

Photometric values based on tests performed in compliance with LM-79

Candlepower				
Angle	End	45	Cross	Back-45
0	1682	1682	1682	1682
5	1654	1672	1699	1669
15	1582	1598	1626	1592
25	1436	1456	1483	1447
35	1232	1260	1291	1247
45	988	1030	1077	1015
55	737	801	877	788
65	490	598	686	586
75	268	394	463	385
85	83	148	159	139

Coefficients of Utilization									
EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)									
pcc	80			70			50		
pw	70	50	30	70	50	30	50	30	30
RCR									
0	118	118	118	115	115	115	111	111	
1	108	103	97	105	101	95	95	93	
2	97	89	81	94	86	81	83	78	
3	89	78	69	86	77	68	73	67	
4	81	68	59	79	68	59	65	57	
5	75	61	53	72	60	52	58	51	
6	68	56	46	67	55	46	53	45	
7	64	51	41	63	50	40	47	40	
8	59	46	38	57	46	36	44	36	
9	56	42	34	55	41	34	40	33	
10	53	39	30	51	39	30	38	30	

Light Distribution			Average Luminance			
Degrees	Lumens	% Luminaire	Angle	End	45°	Cross
0-30	1278	27.3	45	2400	2504	2617
0-40	2063	44.0	55	2207	2400	2627
0-60	3569	76.1	65	1992	2430	2788
0-90	4689	100	75	1778	2616	3075
			85	1630	2926	3136

**FOOTNOTES:**

- 1) Please refer to the energy saving chart on page 3 for details.
  - 2)  $L_{70}$  72,000 hours @ 35°C based on TM21 and LM80.
  - 3) Based on photometric testing consistent with IES LM-79.
- \* "Made-To-Order" product is not kept in inventory. Minimum quantities will apply.
  - \*\* These products do not meet DLC criteria.
  - \*\*\* Please visit [www.philips.com/warranties](http://www.philips.com/warranties) for full details.
- † DLC requires the product to meet specific performance requirements regarding: lumen output, spacing criteria, lumens per watt, color temperature, CRI, lifetime and warranty.

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