

PHILIPS

Recessed

EvoKit LED Retrofit Kits Gen 3

2'x2'



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 savings¹, 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

Product Number	Description	Watts	Volts	Lumen Maintenance (Hrs.) ²	Approx. Lumens ³	CRI	Color Temperature (K)
EvoKit 2'x2' Stock SKUs							
506766	EvoKit 2x2 P 32L 28W 840 2 0-10 7 G3	28	120-277	70,000	3200	80	4000
506741	EvoKit 2x2 P 32L 30W 835 2 0-10 7 G3	30	120-277	70,000	3200	80	3500
506840	EvoKit 2x2 P 32L 31W 840 5 Mk10 7 G3	31	277	70,000	3259	80	4000
EvoKit 2'x2' Made to Order SKU's¹							
506485	EvoKit 2x2 P 23L 20W 840 2 0-10 7 G3	20	120-277	70,000	2300	80	4000
507087	EvoKit 2x2 P 23L 20W 850 2 0-10 7 G3	20	120-277	70,000	2300	80	5000
506469	EvoKit 2x2 P 23L 21W 835 2 0-10 7 G3	21	120-277	70,000	2300	80	3500
507293	EvoKit 2x2 P 23L 21W 840 6 0-10 7 G3	21	347	70,000	2300	80	4000
507285	EvoKit 2x2 P 23L 22W 835 6 0-10 7 G3	22	347	70,000	2300	80	3500
507186	EvoKit 2x2 P 23L 22W 835 2 STEP 7 G3**	22	120-277	70,000	2274	80	3500
506493	EvoKit 2x2 P 23L 22W 835 1 Mk10 7 G3	22	120	70,000	2274	80	3500
507194	EvoKit 2x2 P 23L 22W 840 2 STEP 7 G3**	22	120-277	70,000	2361	80	4000
506576	EvoKit 2x2 P 23L 22W 840 1 Mk10 7 G3	22	120	70,000	2361	80	4000
506618	EvoKit 2x2 P 23L 23W 835 5 Mk10 7 G3	23	277	70,000	2274	80	3500
506709	EvoKit 2x2 P 23L 23W 840 5 Mk10 7 G3	23	277	70,000	2361	80	4000
507111	EvoKit 2x2 P 32L 28W 850 2 0-10 7 G3	28	120-277	70,000	3200	80	5000
507400	EvoKit 2x2 P 32L 29W 840 2 SR 7 G3	29	120-277	70,000	3200	80	4000
507319	EvoKit 2x2 P 32L 29W 840 6 0-10 7 G3	29	347	70,000	3200	80	4000
506857	EvoKit 2x2 P 32L 29W 850 2 SR 7 G3	29	120-277	70,000	3200	80	5000
507301	EvoKit 2x2 P 32L 30W 835 6 0-10 7 G3	30	347	70,000	3200	80	3500
507210	EvoKit 2x2 P 32L 30W 840 2 STEP 7 G3	30	120-277	70,000	3259	80	4000
507392	EvoKit 2x2 P 32L 31W 835 2 SR 7 G3	31	120-277	70,000	3200	80	3500
507202	EvoKit 2x2 P 32L 31W 835 2 STEP 7 G3	31	120-277	70,000	3265	80	3500
506782	EvoKit 2x2 P 32L 31W 840 1 Mk10 7 G3	31	120	70,000	3259	80	4000
506774	EvoKit 2x2 P 32L 32W 835 1 Mk10 7 G3	32	120	70,000	3265	80	3500
506832	EvoKit 2x2 P 32L 33W 835 5 Mk10 7 G3	33	277	70,000	3265	80	3500
Product Number	Description	Watts	Volts	Lumen Maintenance (Hrs.) ²	Approx. Lumens ³	CRI	Color Temperature (K)
EvoKit 2'x2' High Performance							
512293	EvoKit 2x2 P 32L 22W 840 2 0-10 7 G3 HP	22.9	120-277	70,000	3200	80	4000
512285	EvoKit 2x2 P 32L 23W 835 2 0-10 7 G3 HP	23.4	120-277	70,000	3200	80	3500
512863	EvoKit 2x2 P 32L 23W 835 2 SR 7 G3 HP	23.9	120-277	70,000	3200	80	3500
512939	EvoKit 2x2 P 32L 23W 840 2 SR 7 G3 HP	23.4	120-277	70,000	3200	80	4000

See footnotes on page 5.



EvoKit LED Retrofit Kit 2'x2'

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_{70}).

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
502575	EvoKit 2x2 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:



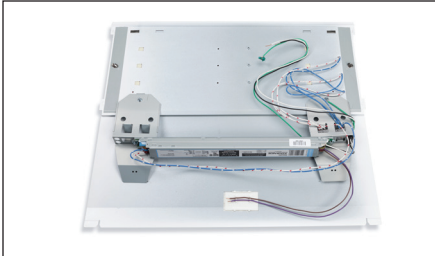
Step 1: Place the smartphone next to the NFC antenna on the driver.

Step 2: Follow the on-screen instructions.

EvoKit LED Retrofit Kit 2'x2'

EvoKitSR with Xitanium SR for connected lighting solutions

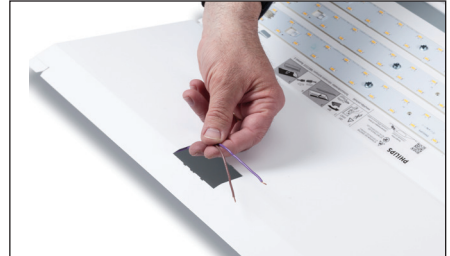
EvoKitSR is a new platform that allows users to choose different control platforms to suit their needs and budget; from simple occupancy and daylight sensing to cloud-connected data-reporting sensing. This empowers users to fine-tune their energy use for reduced energy costs. Contact your Philips representative 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.



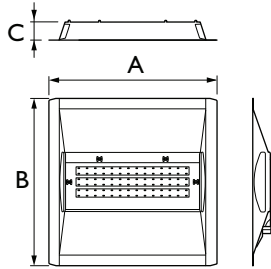
EvoKit			
Model	Initial Lumens	Input Power	Lumens per Watt
EvoKit 2x2 P 32L 28W 840 2 0-10 7 G3 (506766)	3200	28	114
Prod. No.	12NC	Description	
503599	929000725913	EvoKit 2x2 SpaceWise Accessory	
504449	913700359103	Spacewise Programming Tool	
455436	913700364403	Switch/Dimmer	
455428	913700364203	4 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)	3200	28	9
Medium Power Setting (120/277V)	2816	25	8
Low Power Setting (120/277V)	2464	22	7
Minimum Power Setting (120/277V)	2112	18	6

EvoKit LED Retrofit Kit 2'x2'

Dimensions

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



Energy Saving Solution – 2'x2'

Present Wattage	59 W
x Annual Operating Hours	4,380 hrs
	= 258,420 watt-hours
+1,000	= 258.42 kWh per year
x kWh rate of \$0.11	= \$28.43 per year
x 125 fixtures	= \$3,553.28 annual energy cost per space

Present Wattage	28 W
x Annual Operating Hours	4,380 hrs
	= 122,640 watt-hours
+1,000	= 122.64 kWh per year
x kWh rate of \$0.11	= \$13.49 per year
x 125 fixtures	= \$1,686.00 annual energy cost per space

Total Estimated Annual Savings[◇] = \$1,867.00

◇ 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'x2' EvoKit, P 23L 23W 835 5 Mk10 7 G3, 2185 delivered lumens

Catalog No.
Test No. x223L
S/MH 1.2
Lamp Type LED
Ballast
Lumens/Watt 93
Input Watts 23

Comparative yearly lighting energy cost per 1000 lumens - \$2.58 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	782	782	782	782
5	780	778	779	777
15	746	745	747	741
25	677	679	686	675
35	580	590	604	584
45	465	486	510	480
55	349	381	416	375
65	236	279	315	274
75	132	174	201	169
85	41	62	72	57

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	98	105	101	96	96	93	
2	97	90	82	94	88	81	83	79	
3	89	79	69	86	77	68	73	67	
4	81	69	60	79	68	59	66	57	
5	75	61	53	72	60	52	58	51	
6	68	56	46	68	55	46	53	46	
7	64	51	41	63	50	41	47	40	
8	59	46	38	57	46	36	44	36	
9	56	42	34	55	41	34	40	34	
10	53	39	30	51	39	30	38	30	

Light Distribution

Degrees	Lumens	% Luminaire
0-30	596	27.3
0-40	963	44.1
0-60	1675	76.7
0-90	2185	100

Average Luminance

Angle	End	45°	Cross
45	2310	2416	2537
55	2138	2334	2549
65	1966	2322	2623
75	1793	2364	2736
85	1642	2481	2892

EvoKit LED Retrofit Kit 2'x2'

2'x2' EvoKit, P 32L 31W 835 2 SR 7 G3, 2971 delivered lumens

Catalog No. x232L
Test No. 1.2
S/MH
Lamp Type LED
Ballast
Lumens/Watt 98
Input Watts 30

Comparative yearly lighting energy cost per 1000 lumens - \$2.45 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	1059	1059	1059	1059
5	1056	1053	1055	1052
15	1010	1008	1012	1004
25	917	921	930	914
35	787	799	819	792
45	634	660	694	651
55	477	519	566	511
65	325	381	431	373
75	183	239	276	232
85	58	85	99	79

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	98	105	101	96	96	93	
2	97	90	81	94	88	81	83	79	
3	89	78	69	86	77	68	73	67	
4	81	68	59	79	68	59	66	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	41	34	55	41	34	40	33	
10	53	39	30	51	39	30	38	30	

Light Distribution

Degrees	Lumens	% Luminaire	Average Luminance			
Angle	45	End	45°	Cross		
0-30	807	27.2	3149	3280	3448	
0-40	1305	43.9	55	2923	3180	3471
0-60	2274	76.5	65	2703	3169	3586
0-90	2971	100	75	2488	3239	3747
			85	2340	3434	3976

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 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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