

PHILIPS

Recessed

EvoKit Click LED Retrofit Kit 2x2



Project: _____
 Location: _____
 Cat.No: _____
 Type: _____
 Lamps: _____ Qty: _____
 Notes: _____

Philips EvoKit click LED retrofit kit is an aesthetically pleasing and energy efficient LED retrofit kit designed to deliver a refreshed sleek and modern look with minimal material waste. Not only does it offer energy savings¹, it also helps reduce maintenance and installation costs due to its modular design, bulk packaging, and long LED lifetime. Additional information can be found at www.philips.com/evokit. Products can be found on the DLC QPL by searching the 6 digit product number.

Ordering guide (continued on next page)

Product Number	Description	Watts ³	Volts	Lumen Maint. (Hrs.) ²	Approx. Lumens ³	Color Temp. (K)	Efficacy	Dim	Pkg	DLC Code
CLK										
523589	EvoKit CLK 2x2 32L 29W 835 UNV 0-10 P4	29W	120-277	70,000	3200	3500	105	0-10	4 Pack	PL1BNA6C
523597	EvoKit CLK 2x2 32L 29W 840 UNV 0-10 P4	29W	120-277	70,000	3200	4000	109	0-10	4 Pack	PAW88IFC
521211	EvoKit CLK 2x2 32L 29W 835 UNV 0-10 P1	29W	120-277	70,000	3200	3500	105	0-10	Single Pack	PL1BNA6C
◆ 520221	EvoKit CLK 2x2 32L 29W 840 UNV 0-10 P1	29W	120-277	70,000	3200	4000	109	0-10	Single Pack	PAW88IFC
CLKE (Energy Efficient)										
523621	EvoKit CLKE 2x2 32L 24W 835 UNV 0-10 P4	24W	120-277	70,000	3200	3500	133	0-10	4 Pack	PI1M1REQ
523647	EvoKit CLKE 2x2 32L 24W 840 UNV 0-10 P4	24W	120-277	70,000	3200	4000	138	0-10	4 Pack	PL4YK0DF
521336	EvoKit CLKE 2x2 23L 16W 835 UNV 0-10 P1	16W	120-277	70,000	2300	3500	140	0-10	Single Pack	PMGH05VR
521344	EvoKit CLKE 2x2 23L 16W 840 UNV 0-10 P1	16W	120-277	70,000	2300	4000	145	0-10	Single Pack	PI1LMDP2
521377	EvoKit CLKE 2x2 32L 24W 835 UNV 0-10 P1	24W	120-277	70,000	3200	3500	133	0-10	Single Pack	PI1M1REQ
◆ 520247	EvoKit CLKE 2x2 32L 24W 840 UNV 0-10 P1	24W	120-277	70,000	3200	4000	138	0-10	Single Pack	PL4YK0DF
CLKE SR (Energy Efficient Sensor Ready)										
523639	EvoKit CLKE 2x2 32L 25W 835 UNV SR P4	25W	120-277	70,000	3200	3500	125	SR	4 Pack	PZUA74W7
523654	EvoKit CLKE 2x2 32L 25W 840 UNV SR P4	25W	120-277	70,000	3200	4000	129	SR	4 Pack	PYOVOK5S
521385	EvoKit CLKE 2x2 32L 25W 835 UNV SR P1	25W	120-277	70,000	3200	3500	125	SR	Single Pack	PZUA74W7
520254	EvoKit CLKE 2x2 32L 25W 840 UNV SR P1	25W	120-277	70,000	3200	4000	129	SR	Single Pack	PYOVOK5S
CLKE IAP										
523852	EvoKit CLKE 2x2 32L 25W 840 UNV IAP P4	25W	120-277	70,000	3200	4000	129	IAP	4 Pack	POJ1963M
523209	EvoKit CLKE 2x2 32L 25W 835 UNV IAP P1	25W	120-277	70,000	3200	3500	125	IAP	Single Pack	PUOSP5L0
◆ 523225	EvoKit CLKE 2x2 32L 25W 840 UNV IAP P1	25W	120-277	70,000	3200	4000	129	IAP	Single Pack	POJ1963M

See footnotes on the last page.

◆ Made to stock product (Contact your Philips sales representative for stock availability and lead time).

Attention Interact Pro users: Please familiarize yourself with the Interact pro system before beginning your project installation. It is important that the gateway is powered before the Interact ready EvoKits are installed. Design guides and tutorials are available at: <https://www.interact-lighting.com/en-us/what-is-possible/interact-pro>.

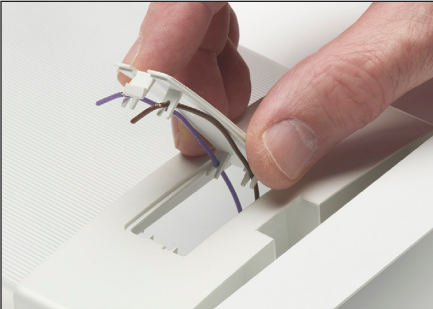


interact
ready.

EvoKit click LED retrofit kit 2x2

EvoKit Sensor Ready (SR) with Philips Advance Xitanium SR for connected lighting solutions

EvoKit SR 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. Various Interact, Philips SpaceWise, and EasySense controls are available. Please refer to [Philips.com/evokit](https://www.philips.com/evokit) for details. Contact your Philips representative for a current list of additional approved sensors. Sensors are connected in the field with just a few simple steps:



Step 1: EvoKit click SR is shipped with a plate covering the sensor hole. There are two wires secured to the back of the plate. The plate can be removed before or after you install the EvoKit click SR in the ceiling.



Step 2: Remove the two wires that were secured to the back of the plate and insert them in an approved sensor for use with EvoKit. They are not polarity sensitive.



Step 3: An adapter bracket is shipped with every EvoKit click SR. Install this adapter ring to the sensor and make sure it is securely fit. Then place the sensor and adapter bracket into the EvoKit SR endcap.

Commercial Product Name	Order Code
EasySense EVO200	516575
Philips single rocker self powered wireless switch	UID8451/10

* EVO200 comes pre-installed in the Gen4 bracket. To install in EvoKit click, this bracket will need removed in the field. Please see www.philips.com/evokit for instructions on removing bracket.

EvoKit bulk pack

EvoKit click is designed to reduce the hidden environmental costs of lighting retrofits. With newly designed multi-unit packaging for EvoKit click, cardboard waste from the 2x4 and 2x2 troffer kits has been reduced by 66% and 77% respectively compared to its predecessor, EvoKit Gen4.

Previously, only 24 kits were able to fit on a single pallet, but, with the new multi-unit packaging, 60 2x4 kits fit on one pallet. This allows for 3,840 units to be fully loaded onto a 53' truck compared to 1,536 units of the previous generation. This results in 2.5x better transportation utilization and storage capacity with the EvoKit click.



EvoKit click LED retrofit kit 2x2

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 149 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.
- EvoKit click is designed for use in most recessed troffers. Some existing fixtures may have features which interfere. Please refer to schematics below.

Enclosure Construction/Finish

- Simple design allows for quick installation 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.
- Integrated securement tabs for securement to existing troffer housing.
- 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. In addition the light module can be removed from below the ceiling for convenient maintenance and upgrades.

Electrical

- Multiple driver options available
 - Philips Advance CertaDrive drivers with 0-10V dimming allow for maximum fixture efficiency and provide 10% dimming.
 - Philips Advance Xitanium SR drivers allow for connectivity options to multiple platforms.
- 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}).

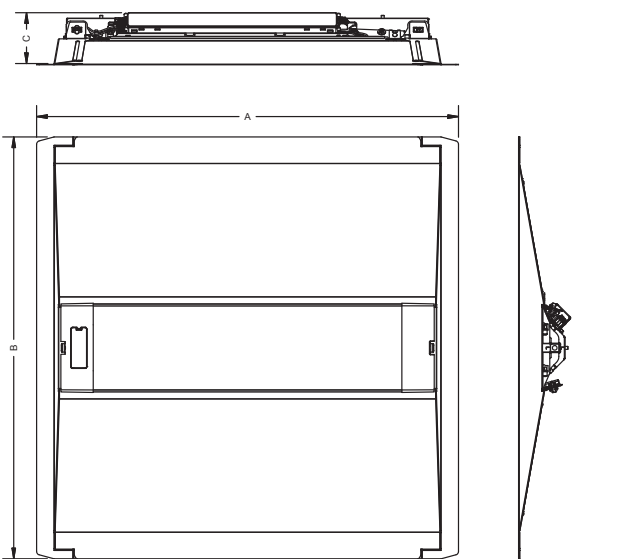
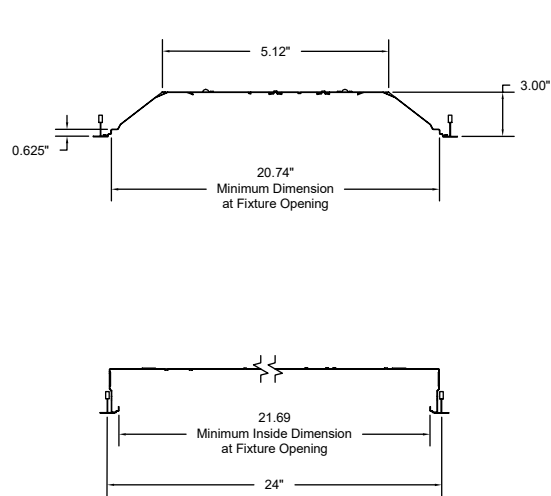
Accessories

- Suitable for use with 503441 emergency backup. The 503441 needs to be field installed in the existing troffer according to the field install instructions provided.
- Suitable for use with a wide range of control systems.
- Earthquake cables available for additional securement to the existing troffer for areas where required.
- EvoKit accessory replacement kit comes with quarter turns, quick disconnects, and spare sensor brackets.

Prod. No.	Description
502435	Earthquake cable 317mm
503441	EvoKit field installed emergency battery backup
522094	EvoKit accessory replacement kit

Dimensions 2x2

EvoKit click was designed to fit into most parabolic and lensed-recessed troffers with minimum dimensional requirements shown below. Philips recommends a sample installation prior to ordering project quantities to ensure compatibility. Philips EvoKit click retrofit kits are not compatible with air handling fixtures.



EvoKit click LED retrofit kit 2x2

EvoKit CLK 2x2 32L 29W 835 UNV 0-10 P1, 3,103 delivered lumens

		Candlepower				
		Angle	End	45	Cross	Back-45
Catalog No.	521211	0	963	963	963	963
Test No.	21211	5	954	959	964	959
S/MH	1.4	15	890	927	960	931
Lamp Type	LED	25	784	871	940	878
Lumens/Watt	105	35	647	791	890	802
Input Watts	29	45	503	683	796	697
		55	371	552	658	570
		65	248	402	490	420
Comparative yearly lighting energy cost per 1000		75	131	251	322	267
lumens - \$2.35 based on 3000 hours and \$0.08/kwh		85	31	87	126	105

Comparative yearly lighting energy cost per 1000 lumens - \$2.35 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

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	106	101	96	96	93	
2	97	90	82	94	88	81	83	79	
3	89	78	68	85	76	68	72	66	
4	81	68	59	79	67	58	65	56	
5	73	60	52	71	59	51	57	50	
6	68	55	46	67	54	45	52	44	
7	64	50	40	61	48	40	46	40	
8	58	45	36	57	45	35	42	35	
9	55	40	33	54	40	33	40	32	
10	52	38	29	50	38	29	36	29	

Light Distribution			Average Luminance			
Degrees	Lumens	% Luminaire	Angle	End	45°	Cross
0-30	754	25.4	45	2418	3282	3825
0-40	1244	41.8	55	2200	3270	3900
0-60	2242	75.4	65	1994	3232	3940
0-90	2974	100.0	75	1716	3291	4222
			85	1193	3401	4894

EvoKit CLKE 2x2 23L 16W 835 UNV 0-10 P1, 2,313 delivered lumens

		Candlepower				
		Angle	End	45	Cross	Back-45
Catalog No.	521336	0	720	720	720	720
Test No.	21336	5	718	718	718	713
S/MH	1.4	15	676	695	710	684
Lamp Type	LED	25	597	652	690	637
Lumens/Watt	140	35	493	593	650	577
Input Watts	17	45	381	515	582	499
		55	278	420	481	405
		65	186	310	357	297
Comparative yearly lighting energy cost per 1000 lumens - \$1.82 based on 3000 hours and \$0.08/kWh		75	101	197	234	187
		85	26	76	93	70

Comparative yearly lighting energy cost per 1000 lumens - \$1.82 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

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	100	95	95	93	
2	97	89	81	94	86	80	82	78	
3	89	78	68	85	76	68	72	66	
4	81	68	58	79	67	58	65	56	
5	73	60	52	71	59	51	57	50	
6	68	55	46	67	54	45	52	44	
7	64	50	40	61	48	40	46	40	
8	58	45	36	57	45	35	42	35	
9	55	41	33	54	40	33	40	32	
10	52	38	29	51	38	29	36	29	

Light Distribution			Average Luminance			
Degrees	Lumens	% Luminaire	Angle	End	45°	Cross
0-30	558	25.5	45	883	1192	1346
0-40	918	42.0	55	794	1198	1373
0-60	1648	75.4	65	720	1199	1383
0-90	2184	100.0	75	636	1243	1478
			85	490	1424	1751

EvoKit CLKE 2x2 32L 25W 835 UNV SR P1, 3,255 delivered lumens

		Candlepower				
		Angle	End	45	Cross	Back-45
Catalog No.	521385	0	1042	1042	1042	1042
Test No.	21385	5	1036	1037	1040	1035
S/MH	1.4	15	972	999	1024	997
Lamp Type	LED	25	856	932	990	929
Lumens/Watt	125	35	707	841	929	838
Input Watts	26	45	545	724	826	723
		55	397	585	681	587
Comparative yearly lighting energy cost per 1000		65	262	426	507	431
lumens - \$2.00 based on 3000 hours and \$0.08/kWh		75	138	266	333	274
		85	32	94	133	111

Comparative yearly lighting energy cost per 1000 lumens - \$2.00 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

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	100	95	95	93	
2	97	89	81	94	86	80	82	78	
3	89	78	68	85	76	68	72	66	
4	81	68	59	79	67	58	65	56	
5	75	60	52	71	59	51	57	50	
6	68	55	46	67	54	45	52	45	
7	64	50	40	61	48	40	46	40	
8	58	45	36	57	45	35	42	35	
9	55	41	33	54	40	33	40	33	
10	52	38	29	51	38	29	36	29	

Light Distribution			Average Luminance			
Degrees	Lumens	% Luminaire	Angle	End	45°	Cross
0-30	806	25.8	45	2617	3480	3968
0-40	1324	42.3	55	2350	3464	4037
0-60	2368	75.6	65	2109	3426	4078
0-90	3131	100.0	75	1812	3497	4376
			85	1264	3666	5191

EvoKit click LED retrofit kit 2x2

Energy saving solution – EvoKit CLKE 2'x2'

Estimated lighting costs using a standard 2 lamp U bend 2x2 troffer

Present wattage	59	W
× Annual operating hours	4,380	hrs
	=	258,420 Watt-Hours
÷ 1,000	=	258.40 kWh per year
× kWh rate of \$0.10	=	\$25.84 per year
× 125 fixtures	\$3,230.25	annual energy cost per space

Estimated lighting costs using a using a Philips 32L 2x2 EvoKit CLKE

Present wattage	24	W
× Annual operating hours	4,380	hrs
	=	105,120 Watt-Hours
÷ 1,000	=	105.12 kWh per year
× kWh rate of \$0.10	=	\$10.51 per year
× 125 fixtures	\$1,314.00	annual energy cost per space

Total estimated annual savings[‡] \$1,916.25

[‡] 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.

FOOTNOTES:

- 1) Please refer to the energy saving chart above for details.
 - 2) L₇₀ 72,000 hours @ 35°C based on TM21 and LM80.
 - 3) Based on photometric testing consistent with IES LM-79.
Actual wattage may differ by +/- 10%. Actual initial lumen output may vary between -10 and +10% of the rated lumens.
- *** Please visit <http://www.usa.lighting.philips.com/support/support/warranty> for full details.
- † Restrictions on Hazardous Substances (RoHS) is a European directive (2002/95/EC) designed to limit the content of 6 substances [lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PBDE)] in electrical and electrical products. For products used in North America, compliance with RoHS is voluntary and self-certified.
- ‡ Evokit luminaires are Design Lights Consortium qualified. Please see the DLC QPL list for exact catalog numbers (<http://www.designlights.org/QPL>).

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