

# 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 savings<sup>1</sup>, 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](http://www.philips.com/evokit).

Products can be found on the DLC QPL by searching the 6 digit product number. Additional information can be found at [www.philips.com/evokit](http://www.philips.com/evokit).

#### EvoKit Click 2x2 with 0-10V Dimming ordering guide

Product Number	Description	Watts <sup>3</sup>	Volts	Lumen Maint. (Hrs.) <sup>2</sup>	Approx. Lumens <sup>3</sup>	Color Temp. (K)	Efficacy	Dim	Pkg	DLC Code
<b>CLK</b>										
◆ 523589	EvoKit CLK 2x2 32L 29W 835 UNV 0-10 P4	29W	120-277	70,000	3200	3500	111	0-10	4 Pack	P5ZOVZ5C
◆ 523597	EvoKit CLK 2x2 32L 29W 840 UNV 0-10 P4	29W	120-277	70,000	3200	4000	111	0-10	4 Pack	P2B98AZY
521211	EvoKit CLK 2x2 32L 29W 835 UNV 0-10 P1	29W	120-277	70,000	3200	3500	111	0-10	Single Pack	PL1BNA6C
520221	EvoKit CLK 2x2 32L 29W 840 UNV 0-10 P1	29W	120-277	70,000	3200	4000	111	0-10	Single Pack	PAW881FC
<b>CLKE (Energy Efficient)</b>										
◆ 523621	EvoKit CLKE 2x2 32L 24W 835 UNV 0-10 P4	24W	120-277	70,000	3200	3500	133	0-10	4 Pack	PBBL99UF
◆ 523647	EvoKit CLKE 2x2 32L 24W 840 UNV 0-10 P4	24W	120-277	70,000	3200	4000	138	0-10	4 Pack	PCGIVN5U
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	P11LMDP2
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
524363	EvoKit CLKE 2x2 23L 16W 850 UNV 0-10 P4	16W	120-277	70,000	2300	5000	143	0-10	4 Pack	PXHL577W
524371	EvoKit CLKE 2x2 32L 24W 850 UNV 0-10 P1	24W	120-277	70,000	3200	5000	137	0-10	Single Pack	PPIUJ9HB
525295	EvoKit CLKE 2x2 32L 24W 830 UNV 0-10 P1	24W	120-277	70,000	3200	3000	132	0-10	Single Pack	PLW3E21B

See footnotes on the last page.

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

Not all product variations listed on this page are DLC qualified. To ensure that a specific model is qualified, visit [www.designlights.org/search](http://www.designlights.org/search)



# EvoKit Click LED retrofit kit 2x2

## Evokit Click 2x2 with Interact Pro scalable SWZCS ordering guide

Product Number	Description	Watts <sup>3</sup>	Volts	Lumen Maint. (Hrs.) <sup>2</sup>	Approx. Lumens <sup>3</sup>	Color Temp. (K)	Efficacy	Dim	Pkg	DLC Code
<b>CLKE SWZCS (Energy Efficient Interact Pro scalable)</b>										
114140	EvoKit CLKE 2x2 32L 24W 840 UNV SWZCS P4	24W	120-277V	70,000	3200	4000	137	SWZCS	4 Pack	
114157	EvoKit CLKE 2x2 32L 24W 835 UNV SWZCS P1	24W	120-277V	70,000	3200	3500	133	SWZCS	Single Pack	
121376	EvoKit CLKE 2x2 32L 24W 840 UNV SWZCS P1	24W	120-277V	70,000	3200	4000	133	SWZCS	Single Pack	

See footnotes on the last page.

## 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
  - IRT9015 – handheld remote for grouping and configuration(at least one remote required for any SWZCS installation)
- For more information on Interact Pro visit: [www.interact-lighting.com/interactproscalablessystem](http://www.interact-lighting.com/interactproscalablessystem)
- For more information on Interact Ready visit: [www.philips.com/interact-ready](http://www.philips.com/interact-ready)

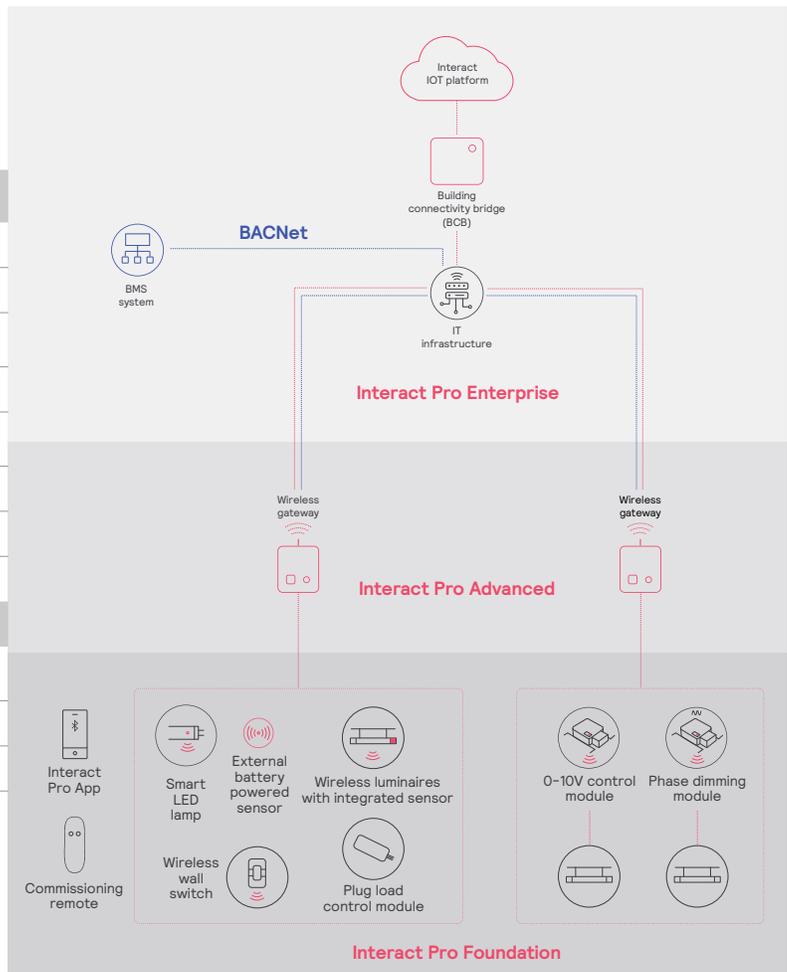
# EvoKit Click LED retrofit kit 2x2

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



# EvoKit Click LED retrofit kit 2x2

## EvoKit Click 2x2 with Spacewise SWZDT ordering guide

Product Number	Description	Watts <sup>3</sup>	Volts	Lumen Maint. (Hrs.) <sup>2</sup>	Approx. Lumens <sup>3</sup>	Color Temp. (K)	Efficacy	Dim	Pkg	DLC Code
<b>CLKE SWZDT (Energy Efficient SpaceWise DT)</b>										
◆ 523878	EvoKit CLKE 2x2 32L 24W 840 UNV SWZ P4	24W	120-277	70,000	3200	4000	138	SWZDT	4 Pack	PAV1FT8Y
◆ 523464	EvoKit CLKE 2x2 32L 24W 835 UNV SWZ P1	24W	120-277	70,000	3200	3500	133	SWZDT	Single Pack	PIT3B0KJ
523472	EvoKit CLKE 2x2 32L 24W 840 UNV SWZ P1	24W	120-277	70,000	3200	4000	138	SWZDT	Single Pack	PJOW6RSK

See footnotes on the last page.

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

### SpaceWise 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](http://www.usa.lighting.philips.com/systems/lighting-systems/spacewise)

# EvoKit Click LED retrofit kit 2x2

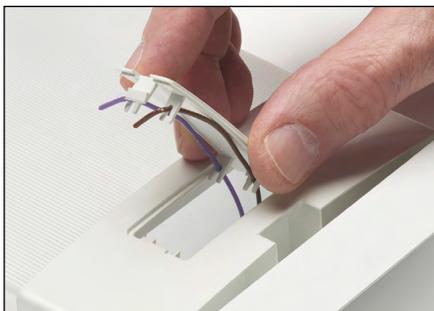
## EvoKit Click 2x2 Sensor Ready ordering guide

Product Number	Description	Watts <sup>3</sup>	Volts	Lumen Maint. (Hrs.) <sup>2</sup>	Approx. Lumens <sup>3</sup>	Color Temp. (K)	Efficacy	Dim	Pkg	DLC Code
<b>CLKE SR (Energy Efficient Sensor Ready)</b>										
523639	EvoKit CLKE 2x2 32L 25W 835 UNV SR P4	25W	120-277	70,000	3200	3500	125	SR	4 Pack	PUB299A2
523654	EvoKit CLKE 2x2 32L 25W 840 UNV SR P4	25W	120-277	70,000	3200	4000	129	SR	4 Pack	PEKKEW6M
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

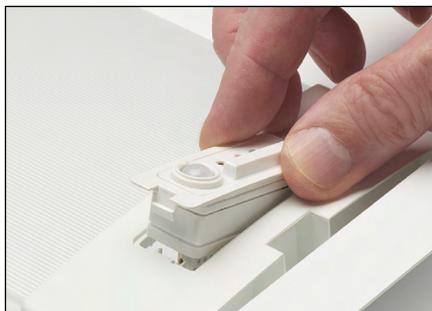
See footnotes on the last page.

## 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 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.

## 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.



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](http://www.philips.com/evokit) for instructions on removing bracket.

# 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<sup>®</sup> to ensure quality performance and safety standards are met.
- High efficiency LEDs have a minimum 70,000 hour rated life (L<sub>70</sub>).

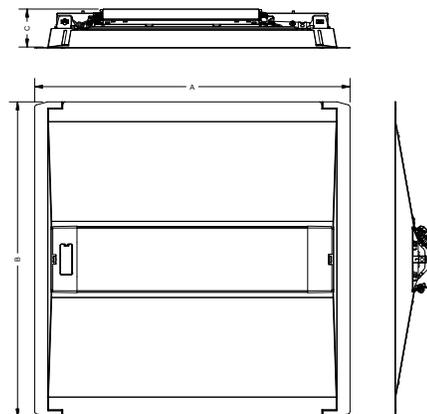
## Accessories

- Suitable for use with Philips 503441 emergency backup or with Philips ER100 UL924 emergency relay.
- Earthquake cables available for additional securement to the existing troffer for areas where required.
- EvoKit accessory replacement kit comes with quarter tunes (51 pieces), quick disconnects (12 pieces), spare sensor brackets (12 pieces) and troffer retrofit labels (12 pieces).

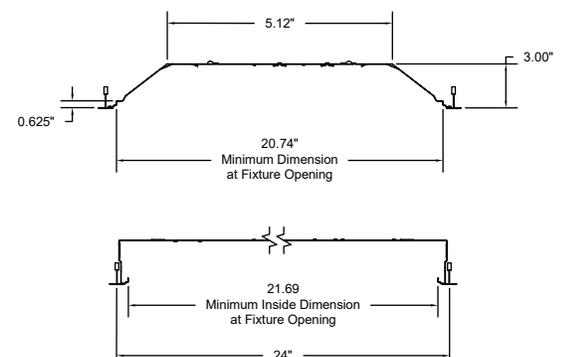
Prod. No.	Description
502435	Earthquake cable 317mm
503441	EvoKit field installed emergency battery backup
522094	EvoKit accessory replacement kit
563569	EvoKit field installed ER100 UL924 emergency relay (requires the use of the ER100 field installation kit of wires and screws)
266833	EvoKit ER100 field install kit (comes in pack of 20). One pack needed per emergency relay

## 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.



A Face Plate Length	B Face Plate Width	C Height
47.83"	23.9"	2.99"



# EvoKit Click LED retrofit kit 2x2

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

	Catalog No.	Test No.	S/MH	Lamp Type	Lumens/Watt	Input Watts	Candlepower					
							Angle	End	45	Cross	Back-45	
	521211	21211	1.4	LED	105	29	0	963	963	963	963	963
							5	954	959	964	959	959
							15	890	927	960	931	878
							25	784	871	940	878	878
							35	647	791	890	802	802
							45	503	683	796	697	697
							55	371	552	658	570	570
							65	248	402	490	420	420
							75	131	251	322	267	267
							85	31	87	126	105	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			
	70	50	30	70	50	30	50	30		
pw										
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

	Catalog No.	Test No.	S/MH	Lamp Type	Lumens/Watt	Input Watts	Candlepower				
							Angle	End	45	Cross	Back-45
	521336	21336	1.4	LED	140	16	0	720	720	720	720
							5	718	718	718	713
							15	676	695	710	684
							25	597	652	690	637
							35	493	593	650	577
							45	381	515	582	499
							55	278	420	481	405
							65	186	310	357	297
							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			
	70	50	30	70	50	30	50	30		
pw										
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

	Catalog No.	Test No.	S/MH	Lamp Type	Lumens/Watt	Input Watts	Candlepower				
							Angle	End	45	Cross	Back-45
	521385	21385	1.4	LED	125	26	0	1042	1042	1042	1042
							5	1036	1037	1040	1035
							15	972	999	1024	997
							25	856	932	990	929
							35	707	841	929	838
							45	545	724	826	723
							55	397	585	681	587
							65	262	426	507	431
							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			
	70	50	30	70	50	30	50	30		
pw										
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<sup>‡</sup> \$1,916.25**

<sup>‡</sup> 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) L<sub>70</sub> 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>).

