

PHILIPS

Linear Troffer

EvoKit LED Retrofit Kit

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)
2'x2' Stock SKUs							
501734	EvoKit 2x2 P 32L 31W 835 2 0-10 7 G2	31	120-277	70,000	3210	80	3500
501759	EvoKit 2x2 P 32L 31W 840 2 0-10 7 G2	31	120-277	70,000	3280	80	4000
502773	EvoKit 2x2 P 32L 31W 835 2 STEP 7 G2	31	120-277	70,000	3120	80	3500
502781	EvoKit 2x2 P 32L 31W 840 2 STEP 7 G2	31	120-277	70,000	3280	80	4000
501775	EvoKit 2x2 P 32L 32W 835 1 Mk10 7 G2	32	120	70,000	3210	80	3500
501783	EvoKit 2x2 P 32L 32W 840 1 Mk10 7 G2	32	120	70,000	3280	80	4000
501791	EvoKit 2x2 P 32L 34W 835 5 Mk10 7 G2	34	277	70,000	3210	80	3500
501809	EvoKit 2x2 P 32L 34W 840 5 Mk10 7 G2	34	277	70,000	3280	80	4000
2'x2' Made to Order SKU's²							
502096	EvoKit 2x2 P 23L 23W 835 2 0-10 7 G2**	23	120-277	70,000	2400	80	3500
502104	EvoKit 2x2 P 23L 23W 840 2 0-10 7 G2**	23	120-277	70,000	2450	80	4000
502799	EvoKit 2x2 P 23L 23W 835 2 STEP 7 G2**	23	120-277	70,000	2400	80	3500
502807	EvoKit 2x2 P 23L 23W 840 2 STEP 7 G2**	23	120-277	70,000	2450	80	4000
502112	EvoKit 2x2 P 23L 23W 835 1 Mk10 7 G2	23	120	70,000	2400	80	3500
502120	EvoKit 2x2 P 23L 23W 840 1 Mk10 7 G2	23	120	70,000	2450	80	4000
502138	EvoKit 2x2 P 23L 25W 835 5 Mk10 7 G2	25	277	70,000	2400	80	3500
502146	EvoKit 2x2 P 23L 25W 840 5 Mk10 7 G2	25	277	70,000	2450	80	4000
503953	EVOKIT 2X2 P 32L 31W 835 2 SR 7 G2	31	120-277	70,000	3200	80	3500
503961	EVOKIT 2X2 P 32L 30W 840 2 SR 7 G2	30	120-277	70,000	3200	80	4000

See footnotes on page 3.



EvoKit 2'x2' LED Retrofit Kit

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 110 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

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.



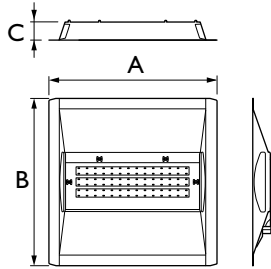
EvoKit			
Model	Initial Lumens	Input Power	Lumens per Watt
EvoKit 2x2 P 32L 31W 840 2 0-10 7 G2	3280	32	103
Prod. No.	12NC	Description	
503599	929000725913	EvoKit 2x2 SpaceWise Accessory	
504449	913700359103	Spacewise Programming Tool	
455436	913700364403	Switch/Dimmer	
455428	913700364203	4 position scene selector	

EvoKit with Spacewise (SWZ)			
Model	Initial Lumens	Input Power Max Output (W)	Input Power Background Output (W)
High Power Setting (120/277V)	3280	32/33	12/13
Medium Power Setting (120/277V)	2886	29/29	11/12
Low Power Setting (120/277V)	2525	25/26	10/11

EvoKit 2'x2' LED Retrofit Kit

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	30 W
x Annual Operating Hours	4,380 hrs
	= 131,400 watt-hours
+1,000	= 131.40 kWh per year
x kWh rate of \$0.11	= \$14.45 per year
x 125 fixtures	= \$1,806.75 annual energy cost per space

Total Estimated Annual Savings[◇] = \$1,746.53

◇ 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, 2408 delivered lumens

Catalog No.
Test No.
S/MH
Lamp Type
Ballast
Lumens/Watt
Input Watts

3L
1.2
929000713713
Mark7
104
23

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	883	883	883	883
5	875	880	877	877
10	859	862	859	860
15	833	835	832	833
20	796	798	797	796
25	751	754	754	752
30	698	702	705	700
35	638	645	652	643
40	575	584	597	583
45	508	523	543	522
50	441	462	491	462
55	374	404	439	405
60	309	349	385	350
65	247	296	326	294
70	191	240	262	235
75	134	181	184	173
80	83	115	100	102
85	38	46	20	31

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	68	
4	81	69	60	80	68	59	66	58	
5	75	61	53	72	60	53	58	52	
6	69	56	46	68	55	46	53	46	
7	65	51	41	63	50	41	48	40	
8	59	46	38	58	46	38	45	36	
9	56	42	34	55	41	34	40	34	
10	53	40	32	51	39	30	38	30	

Light Distribution

Degrees	Lumens	% Luminaire
0-30	669	27.9
0-40	1077	44.9
0-60	1859	77.5
0-90	2399	100

Average Luminance

Angle	End	45°	Cross
45	1995	2054	2135
55	1812	1958	2125
65	1625	1944	2145
75	1437	1940	1976
85	1225	1476	627

EvoKit 2'x2' LED Retrofit Kit

2'x2' EvoKit, P 32L 31W 835, 3210 delivered lumens

Catalog No.
Test No.
S/MH
Lamp Type
Ballast
Lumens/Watt
Input Watts

2L
1.2
929000713713
Mark7
103
31

Comparative yearly lighting energy cost per 1000 lumens - \$2.33 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	1177	1177	1177	1177
5	1167	1173	1169	1170
10	1146	1150	1145	1147
15	1110	1113	1110	1111
20	1062	1064	1063	1062
25	1001	1005	1005	1002
30	930	936	939	933
35	851	860	869	857
40	766	779	796	777
45	677	697	725	696
50	588	616	654	616
55	499	539	585	541
60	412	466	513	466
65	330	394	435	392
70	255	320	350	313
75	178	241	245	231
80	111	153	134	136
85	51	62	26	42

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	68	
4	81	69	60	80	68	59	66	58	
5	75	61	53	72	60	53	58	52	
6	69	56	46	68	55	46	53	46	
7	65	51	41	63	50	41	48	40	
8	59	46	38	58	46	38	45	36	
9	56	42	34	55	41	34	40	34	
10	53	40	32	51	39	30	38	30	

Light Distribution

Degrees	Lumens	% Luminaire	Average Luminance			
0-30	892	27.9	Angle	End	45°	Cross
0-30	892	27.9	45	2660	2739	2846
0-40	1436	44.9	55	2416	2611	2833
0-60	2479	77.5	65	2167	2592	2859
0-90	3199	100	75	1915	2586	2635
			85	1633	1968	836

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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Philips Lighting, North America Corporation
200 Franklin Square Drive, Somerset, NJ 08873
Tel. 855-486-2216

Imported by: Philips Lighting,
A division of Philips Electronics Ltd.
281 Hillmount Rd, Markham, ON, Canada L6C 2S3
Tel. 800-668-9008